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JOSEPH H. PALMER.

Improvement in Washing Machines.

No. 119,396. Patented Sep. 26, 1871.

Fig. 1.

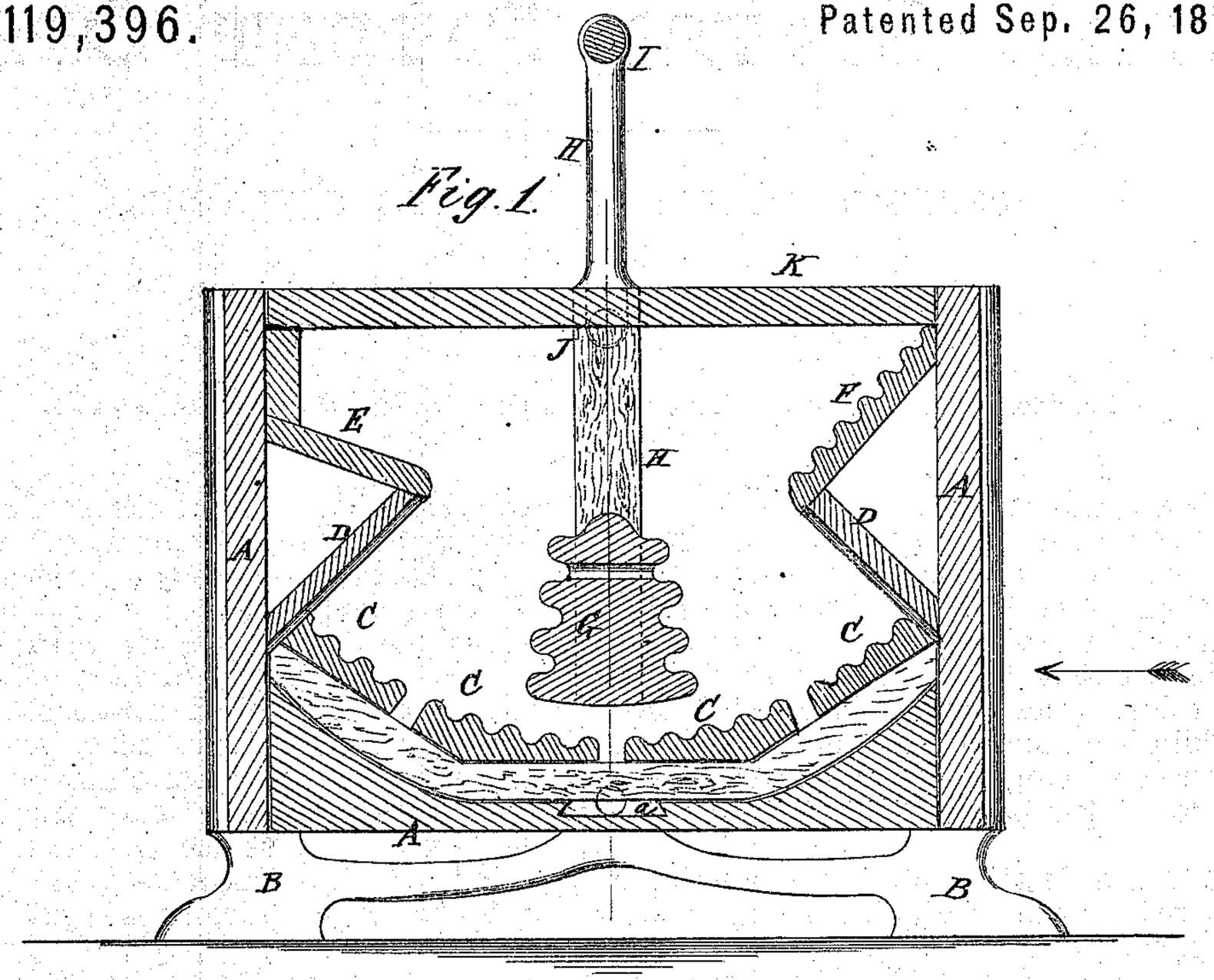


Fig. 2.

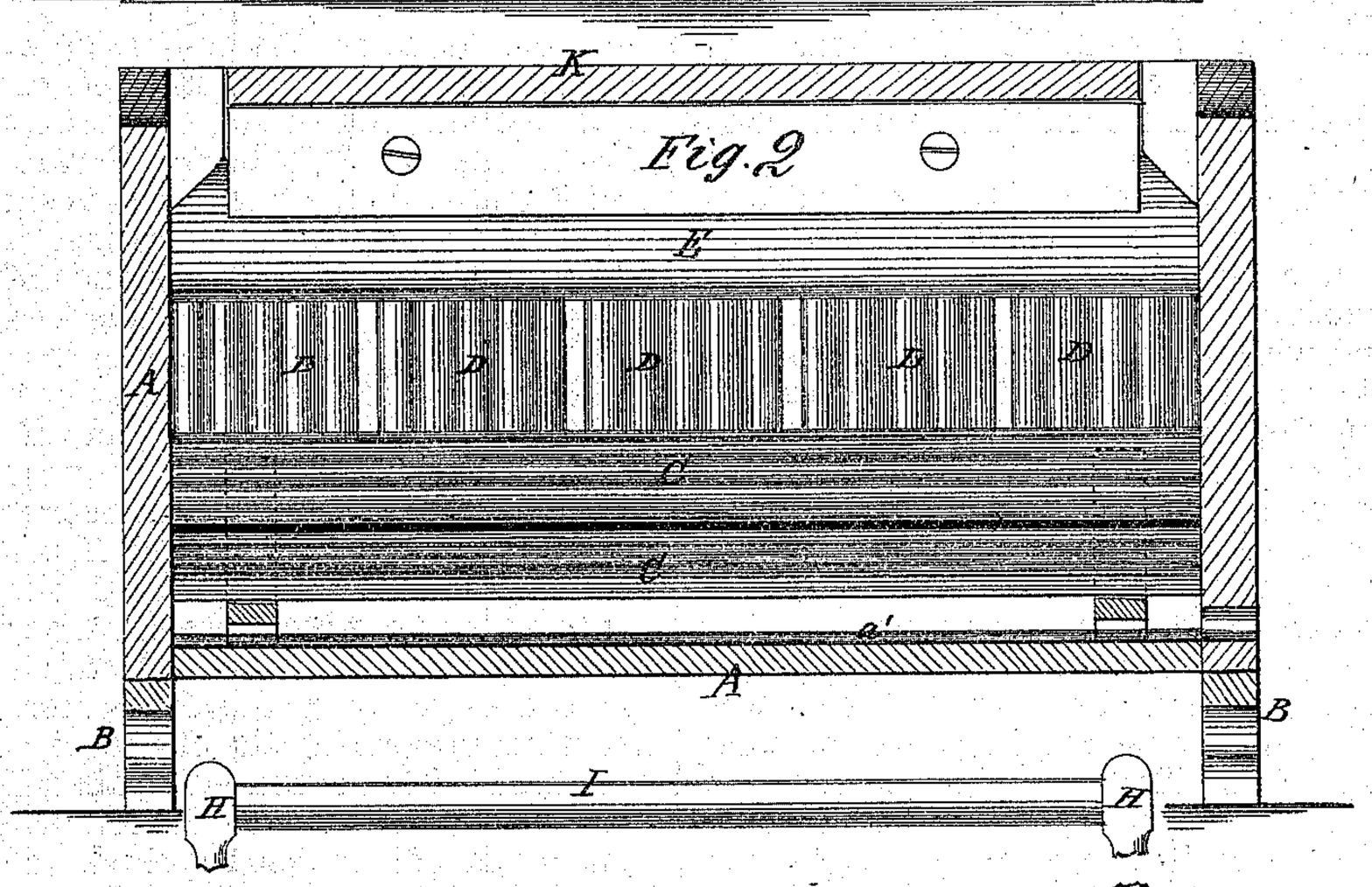
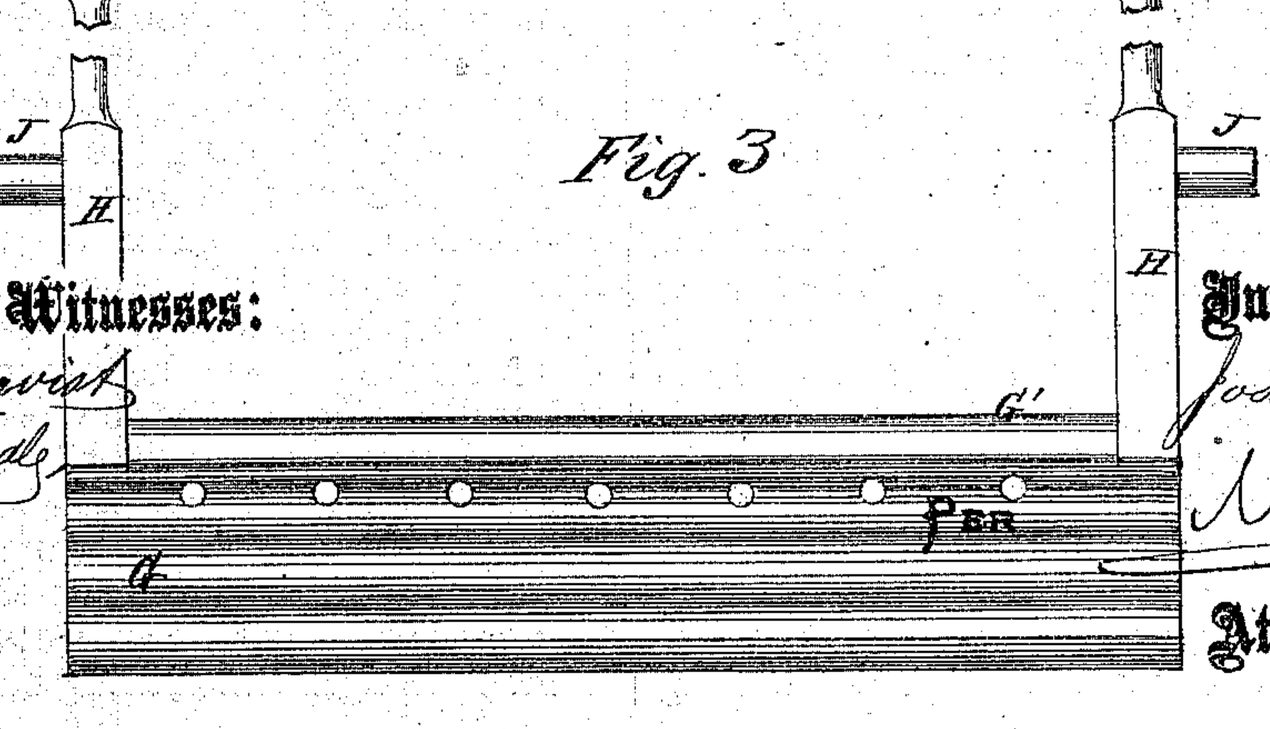


Fig. 3.



Witnesses:

A. W. Almqvist

Francis McArdle

Inventor:

Jos. H. Palmer

Munn & Co

Attorneys.

119,396

UNITED STATES PATENT OFFICE.

JOSEPH H. PALMER, OF YONKERS, NEW YORK.

IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. 119,396, dated September 26, 1871.

To all whom it may concern:

Be it known that I, JOSEPH H. PALMER, of Yonkers, in the county of Westchester and State of New York, have invented a new and useful Improvement in Washing-Machines; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming a part of this specification, in which—

Figure 1 is a detail vertical cross-section of my improved machine. Fig. 2 is a detail longitudinal section of the same, the beater being removed. Fig. 3 is a detail side view of the beater detached or lifted out.

Similar letters of reference indicate corresponding parts.

My invention has for its object to furnish an improved washing-machine, simple in construction, conveniently operated, and effective in operation, washing the clothes quickly and thoroughly, and without injuring even the most delicate fabrics; and it consists in the construction and combination of the various parts of the machine as hereinafter more fully described.

A is the box or tub of the machine, which I prefer to make rectangular in form, and which is supported upon legs B of such a length as to raise the machine to a convenient height. C is a false or second bottom, which is supported at a little distance above the bottom of box A so as to leave a free course for the water between tho two bottoms. The false bottom is corrugated or ribbed longitudinally, and has slots or openings formed in it for the free passage of the water. The bottom or base rubbing-board C is curved upon the arc of a circle having its center in the axis of the swinging frame that supports and operates the beater. D are the side rubber-boards, the lower edges of which are attached to the sides of the box A or to the side edges of the curved bottom C. The boards D project upward and inward, as shown in Fig. 1, so as to be about upon radial lines drawn from the axis of the swinging frame that carries the beater, and their upper edges are supported and held in position by the boards E F. The board E at the rear side of the machine is made plain, but the board F at the forward side of the machine is corrugated, so as to serve as a hand-rubbing board for use in washing the particularly dirty parts of the clothes, if required. The inclined boards D are corrugated or ribbed vertically, and have slots, holes, or openings formed in them to allow the water to pass through freely. G is the beater, which should be made heavy and wider at the bottom than at the top, its sides being about upon radial lines drawn from the axis of the swinging frame that supports said beater, so that as the beater is swinging to either side its sides may be about parallel with the inclined boards D. The sides of the beater G are corrugated longitudinally, so that its corrugations may be at right angles with the corrugations of the inclined side-boards D, to prevent the clothes from being strained or torn when squeezed between the said beater G and the said side-boards D. The beater G may have holes formed through its upper part, as shown in Figs. 1 and 3, to allow the water to pass through; but this is not essential. To the ends of the beater G are attached the lower ends of the arms or bars H, which extend up along the ends of the box A and project to a convenient distance above said box. The upper ends of the bars or arms H are connected by a longitudinal bar, I, which serves as a handle in operating the machine. To the arms or bars H are rigidly attached pivots J, which enter and work in slots in the ends of the box A to serve as fulcrums in operating the beater, and which, should any of the clothes get beneath said beater, allow it to rise, thus preventing the clothes from being cut or injured. This construction also allows the entire beater and frame to be conveniently lifted from the machine when required. The box A is provided with a close cover, K, to prevent the water from spattering out when the machine is being used. In using the machine nearly equal quantities of clothes are put into the box A upon each side of the beater G, which is then oscillated by means of the handle I pressing the clothes at its sides against the inclined boards D alternately. As the beater G is swung in either direction, part of the water before it passes through the openings in the inclined boards D flows back beneath the false bottom C and pours through the openings in the inclined boards D, at the rear of the beater, upon the clothes, forcing them forward after the beater, partly turning them over, again saturating them, and assisting

in cleaning them. Another part of the water flows through the perforations in the beater G, or over its top, and pours upon the clothes in the rear of said beater, and thus assists in saturating and cleaning them. In the middle part of the true bottom of the box A is formed a wide longitudinal dovetailed groove, *a'*, into which the dirt settles, and in which it is retained by the inwardly-inclined side of said groove, so as not to be again brought in contact with the clothes. As the water is drawn off it carries the dirt in the groove *a'* with it, and thus cleans the said groove.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent, is—

1. The combination of the longitudinally-corrugated beater G and frame H I J, curved bottom C having slots or openings formed in it, and inclined vertically-corrugated side-boards D having slots or openings formed in them, with each other, and with the box A, substantially as herein shown and described and for the purposes set forth.

2. The washing-machine side-boards D, having slots therein, and arranged with respect to the false and true bottoms, as described, to form a water-course through the said side-boards and between the said bottoms, for the purpose specified.

The above specification of my invention signed by me this 1st day of August, 1871.

JOSEPH H. PALMER.

Witnesses:

JAMES T. GRAHAM,

T. B. MOSHER.

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