

J. L. M. Boswell, J. Palmer & J. H. James,

Washing Machine.

No. 112,411.

Patented Mar. 7, 1871.

fig. 1.

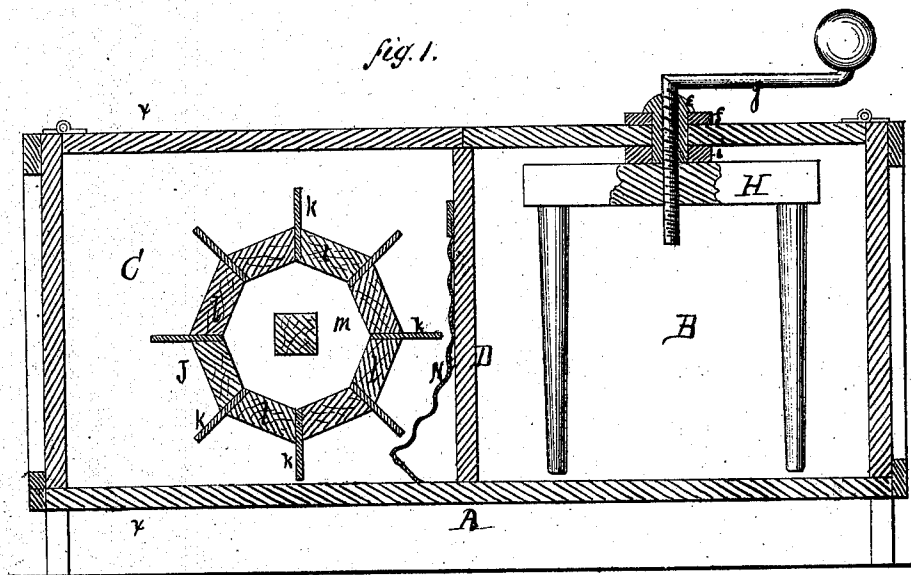


fig. 2.

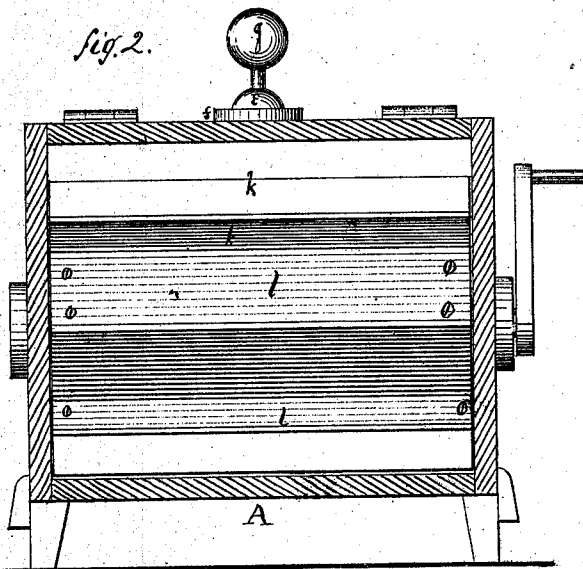
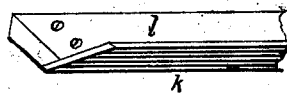


fig. 3.



Witnesses:

Victor Haymaux
A. H. Lawlings,

Inventor

J. Boswell, L. M. Boswell
J. Palmer & J. H. James
By Will. H. Adams

United States Patent Office.

JOSEPH BOSWELL, LEVI M. BOSWELL, JONATHAN PALMER, AND JONATHAN H. JAMES, OF WILMINGTON, OHIO, ASSIGNORS TO THEMSELVES AND THOMAS STARBUCK, OF SAME PLACE.

Letters Patent No. 112,411, dated March 7, 1871.

IMPROVEMENT IN WASHING-MACHINES.

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

To all whom it may concern:

Be it known that we, JOSEPH BOSWELL, LEVI M. BOSWELL, JONATHAN PALMER, and JONATHAN H. JAMES, all of Wilmington, in the county of Clinton and State of Ohio, have invented certain Improvements in Washing-Machines; and we declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawing, in which—

Figure 1 is a longitudinal vertical section of our improved washing-machine.

Figure 2 is a transverse section of the same in the line xx , fig. 1.

Figure 3 is a perspective view of one of the India-rubber wings, detached from the rubbing-cylinder.

Similar letters of reference indicate like parts in the several figures of the drawing.

Our invention has for its object to improve the construction of washing-machines, whereby the same are rendered more convenient and effective in use, as will be hereinafter more fully described.

In the drawing—

A is a rectangular box, of suitable dimensions, divided into two compartments, B C, by a vertical partition, D.

Each compartment is provided with a hinged cover, opening outward from the center or partition.

The cover for the compartment or suds-box B carries stirrer or dasher, H, in the following manner:

Through the center of the cover is placed a tube, e , whose head bears upon a fixed washer, f .

The main portion of the crank-arm or handle g passes through the tube and through the head of the dasher, and is provided with a screw-thread, by which it is attached to these parts.

A washer, i , upon the under side of the cover, fits over the tube to hold it in place.

By this construction the tube turns with the crank-shaft and dasher and forms a more substantial bearing in the cover.

These parts are easily removed by simply unscrewing the dasher, as will be readily understood.

J is the rubbing-cylinder, having its bearings in the sides of the compartment C, and provided with a series of wide radial wings, K, of India rubber.

These wings are applied to the cylinder by being first secured at one edge to a series of beveled strips of wood, l , in the manner shown in fig. 3, which strips are then screwed to the periphery of the cylinder-heads m .

By this construction the wings can be removed separately, without interfering with each other, should it, for any reason, become necessary.

N is a rubbing-board, composed of corrugated metal, attached to the upper end of the partition D, and extending downward in an inclined or curved position between said partition and the rubbing-

cylinder sufficiently near the latter to receive the pressure of the rubber wings when the cylinder is rotated.

The operation of the machine is as follows:

The articles to be washed are first placed in the suds-box and the dasher rotated first in one direction two or three times, and then in the opposite direction from two to three minutes.

By this movement the clothes are saturated with soap-suds and a large proportion of the dirt removed.

The clothes are then hung upon the partition D with one end within reach of the India-rubber wings of the cylinder, the latter being rotated so that the wings shall move downward over the rubbing-board.

The wings seize the clothes and carry them downward over the rubbing-board, from which they are delivered into the compartment C, under the cylinder.

By this operation the wings beat with a yielding blow upon the clothes, which are also subjected to a rubbing action upon the board, and by the movement of the wings themselves.

The board may be held rigidly to the partition, or one or more springs may be interposed between the two to hold the rubber up to the cylinder.

If the clothes are moved too rapidly by the cylinder they may be held by one hand and fed through slowly.

The cylinder may be operated by a hand-crank attached to its shaft, by a treadle, or by any suitable motor.

If desired, the box A may be made without the suds-box B and its attachments, the cylinder and rubbing-board only being used.

Having thus described our invention,

What we claim as new, and desire to secure by Letters Patent, is—

1. The combination of the vertical, corrugated, rubbing-board N and the cylinder J, carrying the radial wings K, when said wings are extended to bear against the rubbing-board, substantially as described, for the purpose specified.

2. The washing-machine, consisting of the box A, divided into two compartments, B C, by the partition D, the hinged cover, the removable dasher H, the cylinder J, having the radial India-rubber wings K, and the vertical rubbing-board N, all arranged and operating substantially as and for the purposes specified.

JOSEPH BOSWELL.
LEVI M. BOSWELL.
JONATHAN PALMER.
JONATHAN H. JAMES.

Witnesses:

I. M. WEST,
MELVILLE HAYES.