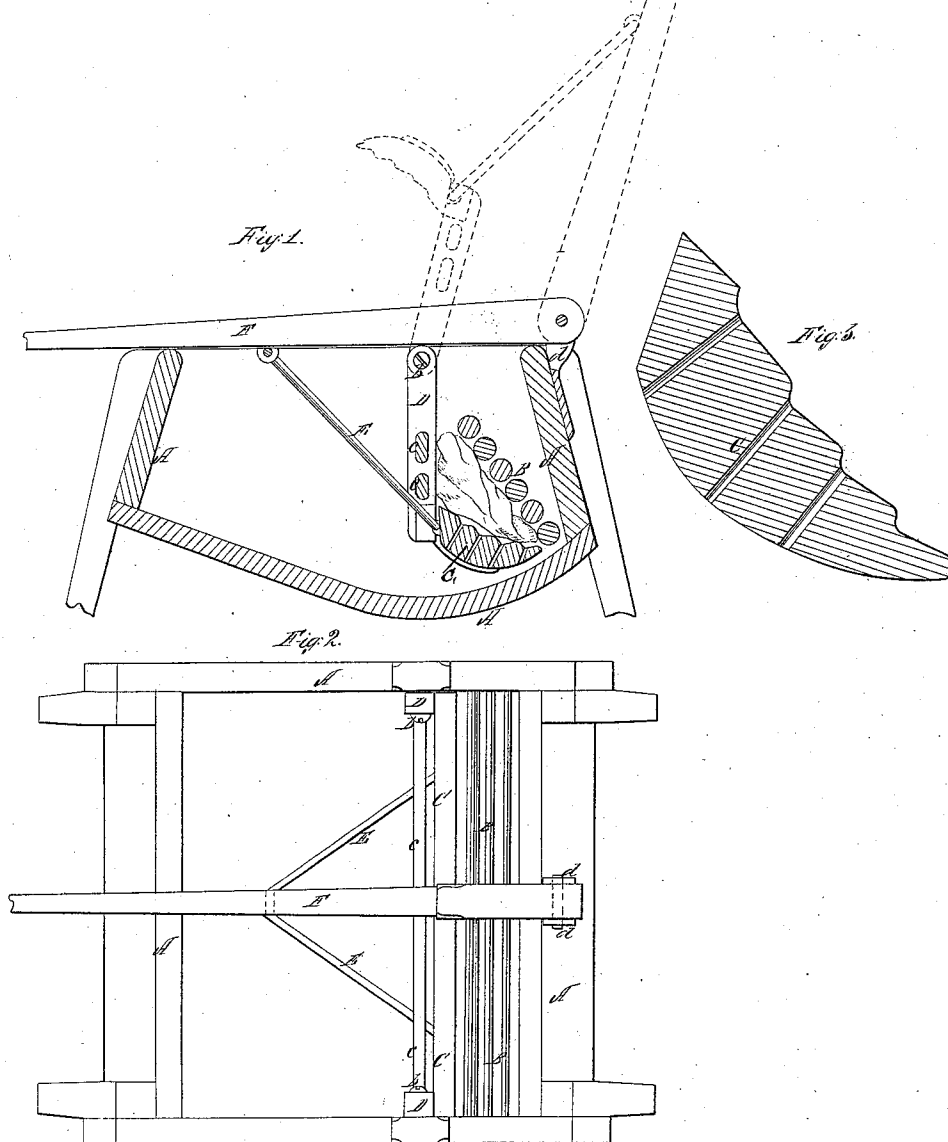


H. P. Jones,

Washing Machine,

N^o 43,508.

Patented July 12, 1864.



Witnesses:

R. F. Campbell
E. Schaefer

Inventor:

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UNITED STATES PATENT OFFICE.

H. P. JONES, OF DAVENPORT, IOWA.

IMPROVED WASHING-MACHINE.

Specification forming part of Letters Patent No. 43,508, dated July 12, 1864.

To all whom it may concern:

Be it known that I, H. P. JONES, of Davenport, county of Scott, and State of Iowa, have invented a new and Improved Washing-Machine; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a longitudinal section taken in a vertical plane through the center of my improved machine. Fig. 2 is a plan view of the machine; and Fig. 3 is a cross-section through the dasher, full size.

Similar letters of reference indicate corresponding parts in the three figures.

My invention consists in a vibrating dasher of a peculiar construction, operating in conjunction with an inclined wash-board, so as to rotate the articles in the act of washing them, and thus subject them to a thorough cleansing action, as will be hereinafter described.

Another object of my invention is to apply a lever to said dasher, by which comparatively little manual power will be required to operate the machine, as will be hereinafter described.

Another object of my invention is to construct a dasher in such manner that a stepped concave perforated surface is brought to act upon the garments, as will be hereinafter described.

To enable others skilled in the art to make and use my invention, I will describe its construction and operation.

In the accompanying drawings, A represents the wash-box, within which the articles to be washed are put. This box is constructed with an inclined bottom, curving upward at one end, and also with inclined ends, as shown in Fig. 1. The sides of this box are vertical. Within the box A, and near one end thereof, is a wash-board, B, composed of a number of rollers or bars arranged one above the other in a plane inclining toward one end of the box. Rollers B are set at such distances apart as to allow the water which is forced through or from the clothes to escape freely through them.

C represents a dasher, which has its lower surface rounded, as shown in Figs. 1 and 3, and its upper acting surface stepped and

curved inward. This dasher C is clearly shown in Fig. 3, where I have represented it in full size. The steps or corrugations have rounded corners, so that they will not injure fine fabrics washed in the machine. The ends of this dasher are secured to the lower end of two vibrating arms, D D, which are respectively pivoted to the vertical sides of the wash-box A at *b b*, Figs. 1 and 2. Said arms are braced by two horizontal transverse slats, *cc*, which are used also to prevent the clothes from falling behind the dasher C when this dasher is forced toward the wash-board B. The slats not only serve the two purposes just mentioned, but they assist the dasher in its work of compressing and cleansing the clothes. The dasher is secured to its arms in such manner that it passes under the clothes as it is forced toward the wash-board, rubs and turns them, so that in repeating the operation a new surface is presented to this dasher, and thus the clothes or other articles subjected to the machine are thoroughly cleansed of dirt without injurious rubbing. The inclination of the wash-board B assists the dasher with its turning action upon the clothes as the lower portions of the latter are forced up against the lowermost roller of the wash-board, thus causing the upper portions to fall immediately on the withdrawal of the dasher, then on the return of the latter again a similar operation takes place.

E represents a forked rod, which is pivoted at one end to the lever-handle F, and at its forked ends to the rear end or edge of the dasher C. The lever F is pivoted at one end to ears *d d*, which are secured to that end of the box A which is nearest the wash-board, and this lever may be made of any convenient length. The connection E may be made by bending a rod in the form represented in Fig. 2, and pivoting its ends by staple-fastenings, or in any other suitable manner.

The pivot-connections of the several parts above described are so arranged that while the dasher can be made to act to the best advantage upon the clothes in the box, this dasher can be thrown up to the position shown in Fig. 1 in red lines, so that a person can readily get at the articles in the box.

It will be seen by reference to Figs. 1 and 2 that my concave stepped dasher has a number of holes through it. The object of thus

perforating this dasher is to allow the water forced through or from the clothes to freely escape behind as the dasher is forced toward the wash-board. Said perforations are more particularly useful for my concave-surface dasher than for any other, for it is desired in my machine to force the water through the clothes and through the wash-board, as well as through the dasher; hence the necessity of the perforations.

The operation of washing is as follows: The lever F being thrown back, as indicated in red lines, Fig. 1, a small pail of water is put into the box. The articles to be washed are now put in and saturated and soaped, after which they are arranged across the bottom of the box. When a sufficient number are put in, the operator proceeds by means of the lever F to squeeze the articles, which receive a pressure equal to his weight, added to the great leverage obtained by the arrangement above described. The articles, being squeezed between the head and the series of rollers which compose the wash-board, on being released by the upward motion of the lever F, roll forward toward the head and thus present a new face to receive the coming pressure.

It will be seen by the cross-sectional view of my dasher, Fig. 3, that its acting surface is not notched or fluted, but regularly stepped, one plane portion rising gradually above the other plane portion from the lowermost step to the highest step. This stepped surface is also concave, as would appear by drawing a straight line across it touching the highest and lowest steps. The operation of this

dasher is as follows: As the dasher C is advanced toward the articles lying upon the bottom of the box A, the lowermost step passes under these articles and lifts them upon the concave surface of the dasher, where they are immediately brought in contact with the wash-board and compressed. By making the surface of the dasher concave as well as stepped, the upper and lowermost portions of large articles will be acted upon equally with those portions which are in the middle of the dasher, whereas, if this dasher were made with a straight surface parallel to the inclination of the surface of the wash-board, the operation would be different, and some portions of the same clothes might remain as dirty as when first put into the machine, in consequence of their escaping the action of the dasher.

Being perforated, my dasher does not require much power to resist the water, as the latter will escape through it freely as it is moved backward and forward.

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

A dasher, C, for a washing-machine, which is constructed with a regularly-stepped and concave surface, in contradistinction to a flat fluted surface, substantially as described.

Witness my hand in the matter of my application for a patent on a washing-machine.

H. P. JONES.

Witnesses:

BL. PETERS,
S. TEGETEV.