

Moses S. Marshall.

WASHING MACHINE.

PATENTED JUL 4 1871

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Fig. 1.

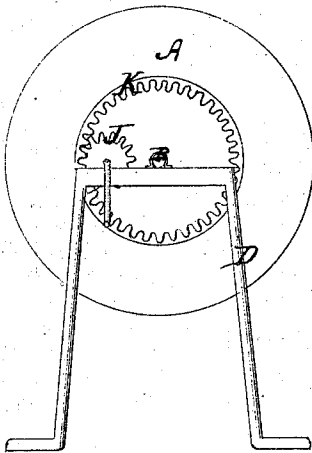


Fig. 2.

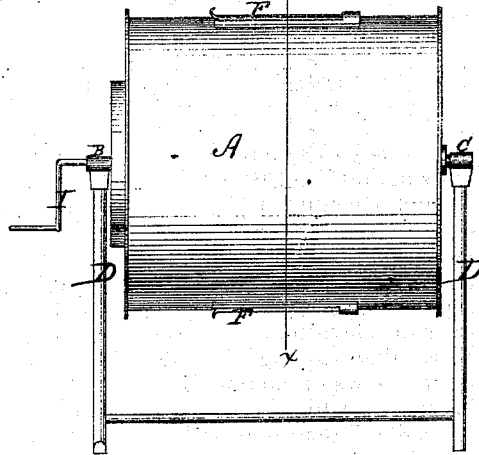
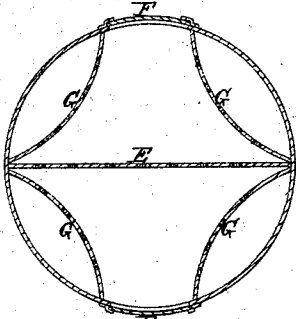


Fig. 3.



Witnesses.

G. F. Brown.
Andrew Cowes

Inventor.

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Atty.

UNITED STATES PATENT OFFICE.

MOSES S. MARSHALL, OF SOMERVILLE, ASSIGNOR TO JOHN T. FOLSOM AND
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IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. 116,614, dated July 4, 1871.

To all whom it may concern:

Be it known that I, MOSES S. MARSHALL, of Somerville, in the county of Middlesex and State of Massachusetts, have invented certain Improvements in Washing-Machines, of which the following is a specification:

Figure 1 is an end elevation of my invention. Fig. 2 is a side elevation. Fig. 3 is a sectional view through line *x x*, Fig. 2; and Figs. 4, 5, 6, and 7, similar views of modifications.

This invention, which I term the "vacuum hydraulic washer," relates to cylindrical rotary washing-machines; and consists mainly of certain peculiar arrangements of a perforated partition and buckets, and certain other details of construction, as will hereinafter more fully appear.

In the drawing, A represents the cylinder, provided with journals B C, which have their bearings in the frame D. E represents a perforated partition which crosses the interior of cylinder A, dividing the same into two portions, each being provided with an opening covered by a hinged or sliding water-tight door, F, which doors are located in opposite sides of cylinder A. G G represent curved perforated plates attached to the inner periphery of cylinder A, constituting buckets, and covering the entire surface of the same between partition E and doors F, as shown in Fig. 3. The journal C is hollow, and connects the interior of cylinder A with the external air.

The hot water, &c., are put into the cylinder A through one of the doors F, and fill a portion of said cylinder below partition E. The fabrics to be washed are then placed in the cylinder above partition E, and become saturated by the steam from the hot water below said partition, thereby moistening the fabrics before they come in direct contact with the hot water, and preventing the

"setting" of stains, &c. The steam-filling cylinder A rushes out through the hollow funnel C, thereby creating a partial vacuum within said cylinder, which opens the fibers of the fabrics therein and renders them more easily cleaned.

The cylinder A being revolved by the crank I and gearing J K a constant and violent agitation of the water is kept up, the same being precipitated upon the fabrics from within the perforated partitions or buckets G and from the opposite side of partition E to that containing the fabrics.

L L, Fig. 4, represent semi-cylindrical perforated buckets, smaller than the buckets G. O O, Fig. 5, represent similar buckets, not perforated, but open at one side. P P, Fig. 6, represent buckets provided with one curved and one plane surface, the latter only being perforated, as shown; and R R, Fig. 7, represent buckets provided with two plane surfaces, at right angles with each other, one of such surfaces being perforated. These buckets are all modifications of buckets G, and either may be used with like effect.

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

The perforated bucket G and perforated partition E, in combination with cylinder A provided with two hinged or sliding doors, F, one on each side, all arranged and operated substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

MOSES S. MARSHALL.

Witnesses:

CARROLL D. WRIGHT,
CHARLES F. BROWN.