M. S. Marshall,

Washing Machine.

NO. 110,482. Patented Dec. 27. 1870.

Fig. 1.

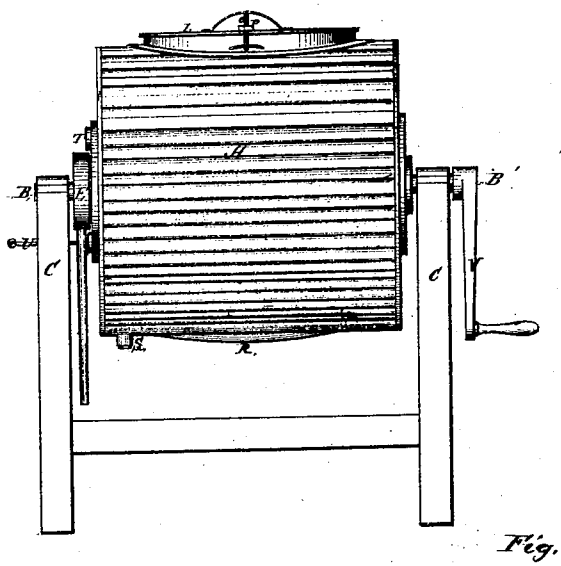


Fig. 3.

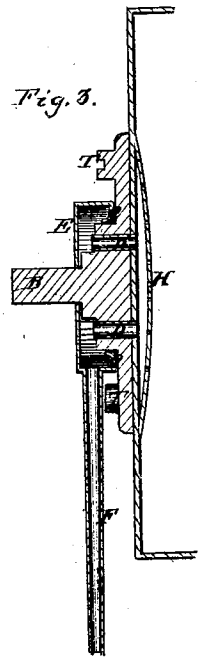


Fig. 2.

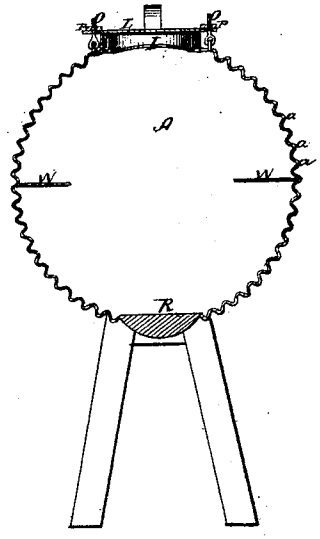


Fig. 5.

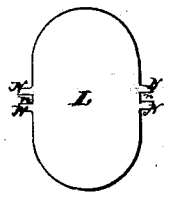
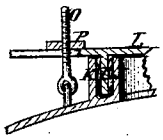


Fig. 4.



Witnesses.

C. F. Brown.

J. B. Hayden

Inventor:

Moses S. Marshall

by Carroll D. Wright

Atty.

United States Patent Office.

MOSES S. MARSHALL, OF SOMERVILLE, ASSIGNOR TO JOHN T. FOLSOM AND JOHN S. FOLSOM, OF BOSTON, MASSACHUSETTS.

Letters Patent No. 110,482, dated December 27, 1870.

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 I, MOSES S. MARSHALL, of Somerville, in the county of Middlesex and State of Massachusetts, have invented certain Improvements in Washing-Machines; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawing and letters of reference marked thereon making a part of this specification, in which—

Figure 1 is a side elevation of my invention;

Figure 2, a transverse vertical central section; and

Figures 3, 4, and 5, views of parts in detail.

This invention relates to that class of washing-machines which are cylindrical in shape, and revolve on horizontal bearings, otherwise known as rotary machines; and

It consists mainly in an improved method of ventilating the cylinder, and in an improved method of attaching the cover or lid; also in certain minor details of construction for keeping the cylinder right side up, or in any desired position when not in operation, as will hereinafter more fully appear.

In the drawing—

A represents the cylindrical machine, which is constructed of corrugated sheet-metal, the corrugations *a* operating like ordinary wash-boards.

The cylinder A is provided with journals B B', which have suitable bearings in the frame C.

D D represent tubes leading from the interior of cylinder A into the circular case E, which surrounds journal B, but does not partake of its motion.

The case E is provided with the tube F, which leads from the bottom of the same downward, and also with the bent flange *e*, which incloses a projection on the end of cylinder A.

H represents a convex perforated partition like the rose of a watering-pot, which covers the inner ends of tubes D, and prevents the same from being stopped by the fabrics within cylinder A.

I represents an oval or other-shaped orifice in the cylinder A, which orifice is surrounded by the upwardly-projecting flanges J K, which latter have a space between themselves.

L represents a cap or lid corresponding in shape to orifice I, and provided with the downwardly-projecting flange *l*, which enters the space between flanges J K, and is rendered water-tight by means of packing.

N N represent projections on the sides of lid L, between which are spaces, *n n*, into which enter the pivoted screw-bolts O, which are provided with nuts P, which latter, when screwed down, firmly secure the lid L.

The object of the orifice I is to insert the fabrics and water for washing.

R represents a weighted space in cylinder A, opposite the lid, which weight keeps the latter uppermost when not in operation.

S is an eduction-pipe beside weight R.

T T represent sockets on the end of cylinder A, into which enters the end of pin U, which passes through frame C, and thereby holds the cylinder A in any desired position.

V represents a crank attached to journal B'.

W W represent horizontal shelves on the inside of cylinder A, which operate to detain the fabrics in the same, and causing them to drop with more or less force, thereby facilitating the washing operation.

It will be readily seen that by the arrangement for ventilating, the steam or spray which escapes is caught and collected in case E, from whence it passes off through tube F into a suitable receptacle.

I am aware that rotary washing-machines have been ventilated by tubes through the journals, but I know of no arrangement whereby such free and perfect ventilation and freedom of waste water are obtained as by mine.

Having thus fully described my invention,

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

1. The cylinder A, having ventilating-tubes D and convex perforated partition H, in combination with circular case E, having tube F, substantially as described.

2. The lid L, having flange *l* and projections N, in combination with cylinder A, having flanges J K and pivoted bolts O, substantially as described.

3. The weight R, in combination with cylinder A, substantially as described.

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

MOSES S. MARSHALL.

Witnesses:

CARROLL D. WRIGHT,

CHARLES F. BROWN.