

C. H. LANE, W. A. HUTCHENS & J. MCGREW.
Washing-Machine.

No. 214,404.

Patented April 15, 1879.

Fig. 1.

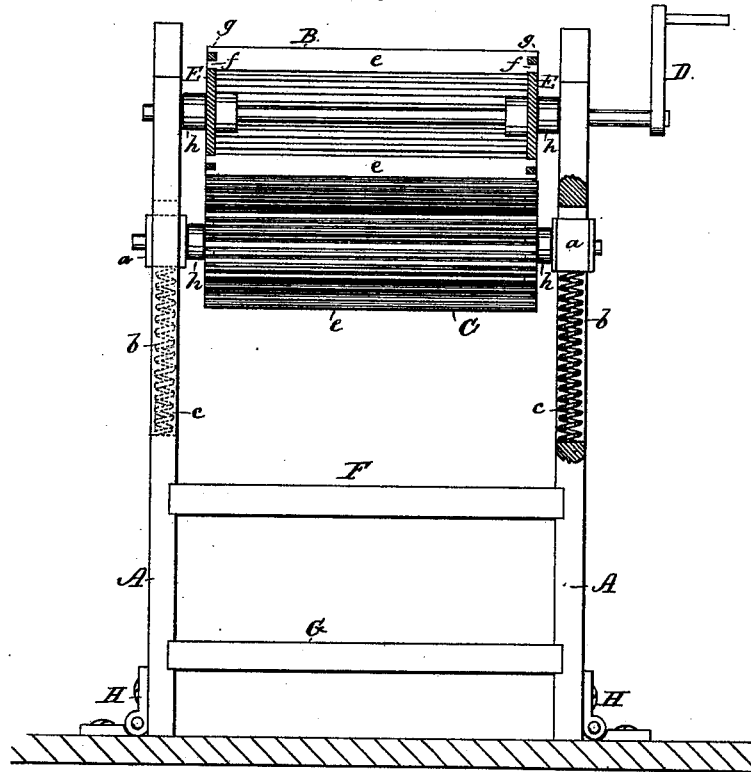


Fig. 2.

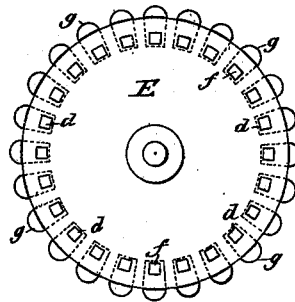
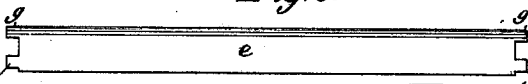


Fig. 3.



WITNESSES:

W. W. Hollingsworth
E. W. B. B. B.

INVENTORS:

C. H. Lane
W. A. Hutchens
J. M. McGrew

BY

ATTORNEYS.

UNITED STATES PATENT OFFICE

CASPER H. LANE, WILLIAM A. HUTCHENS, AND JOHN MCGREW, OF
GARNETTSVILLE, KENTUCKY.

IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. **214,404**, dated April 15, 1879; application filed
February 10, 1879.

To all whom it may concern:

Be it known that we, CASPER H. LANE, WILLIAM A. HUTCHENS, and JOHN MCGREW, of Garnettsville, in the county of Meade and State of Kentucky, have invented a new and Improved Washing-Machine; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side elevation with one of the cylinders in section and the frame broken away to show one of the springs. Fig. 2 is an end view of one of the cylinders. Fig. 3 is a detail view of one of the ribs forming the periphery of the cylinders.

Our invention relates to certain improvements in washing-machines of that form in which two hollow cylinders are constructed with a periphery of longitudinal ribs, and are arranged to rotate in contact with each other and to wash the clothes as they pass between by a squeezing action.

The improvement consists in the novel construction of these cylinders, as hereinafter fully described.

In the drawings, A represents the frame-work of the washing-machine, in bearings in the upper end of which is located the upper cylinder, B, and just beneath which is the cylinder C, journaled in bearings *a*, which are made movable in slots *b* of the frame-work, and are held up by subjacent spiral springs *c* to cause the lower cylinder to press with a yielding action against the clothes as they pass between. Both these cylinders are constructed alike, except that the shaft of the upper one is extended through its bearing and furnished with a crank-handle, D, for turning the same. In forming said cylinders the heads E E of the same are made of metal and provided with a row of holes, *d*, near their peripheries, to receive and hold the ribs *e*. Said ribs are forked or slotted at their ends, and one set of extensions, *f*, of the forks of said ribs enters the holes *d*, while the other set, *g*, overlaps the peripheries of the cylinder-heads.

The extensions *f*, it will be seen, serve to hold the ribs against lateral displacement, while the extensions *g*, by continuing the length of the ribs across the periphery of the heads, prevent the ribs from turning upon the extensions *f* as upon pivots. In applying these parts in the construction of the cylinders the extensions *f* of the ribs are inserted in the holes *d* of the cylinder-heads, and said heads are then held to their positions against the ends of the ribs by washers or clamping-nuts *h*.

This mode of constructing the cylinders, it will be seen, forms a very simple and substantial connection for the ribs, and permits the water to have free access to the interior of the cylinder, so as to wash the clothes on both sides.

F G are two cross-boards connecting the lower ends of the side bars, which boards serve to give stiffness to the frame, and may be utilized as shelves.

The machine as thus described is designed to be placed in a wash-tub of any construction. In securing it firmly in such relation its lower ends are provided upon each side with hinges H H, one leaf of each of which hinges is permanently attached to the side bars with the pintle upon a level with the bottom of said frame, and the other leaves of which are free and adapted to be screwed at right angles to the bottom of the tub.

In constructing the machine, all of its bearings are preferably made of Babbitt metal.

Having thus described our invention, what we claim as new is—

The cylinders consisting of the heads E, having holes *d*, in combination with the ribs having extensions *f* entering said holes and the extensions *g* overlapping the peripheries of said heads, substantially as described.

CASPER HAUSER LANE.
WILLIAM ALLEN HUTCHENS.
JOHN MCGREW.

Attest:

GEORGE HOWARD,
JAMES R. CHAPMAN,