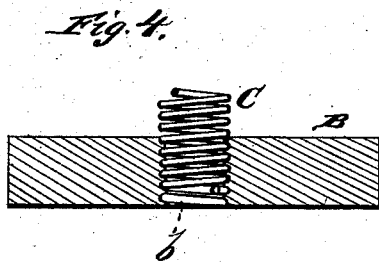
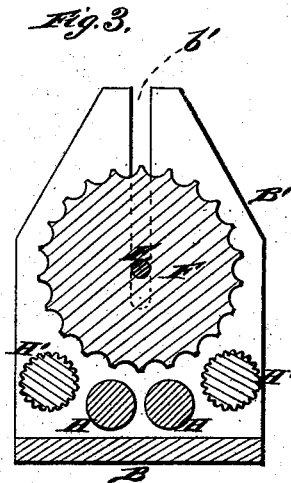
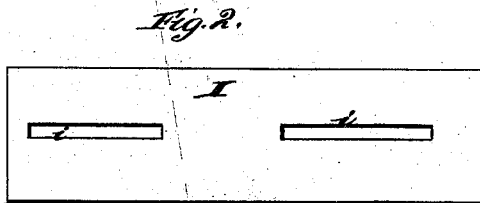
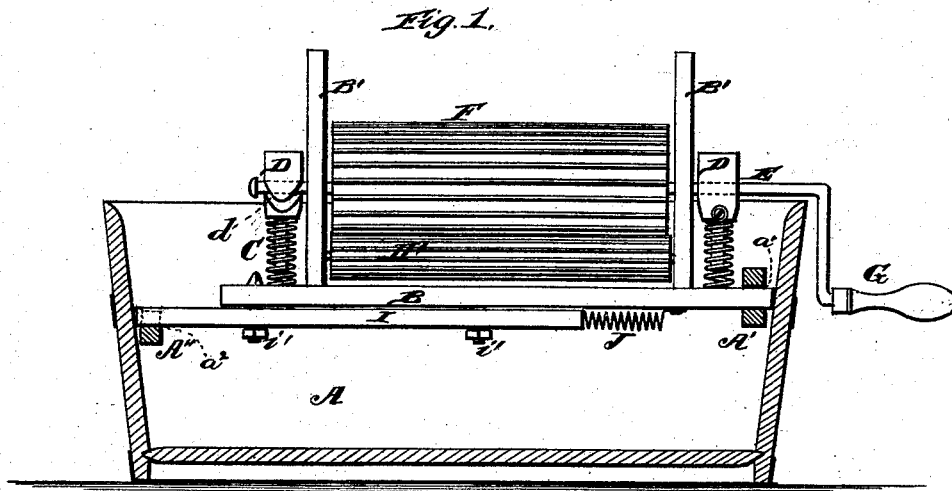


J. M. CURTICE.  
Washing-Machine.

No. 211,381.

Patented Jan. 14, 1879.



WITNESSES  
*Robert Everett,*  
*James J. Sheehy.* By

INVENTOR.  
*Jesse M. Curtice.*  
*Gilmore Smith & Co.*  
ATTORNEYS.

# UNITED STATES PATENT OFFICE.

JESSE M. CURTICE, OF MOUNT STERLING, KENTUCKY.

## IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. **211,381**, dated January 14, 1879; application filed October 5, 1878.

*To all whom it may concern:*

Be it known that I, JESSE M. CURTICE, of Mount Sterling, in the county of Montgomery and State of Kentucky, have invented a new and valuable Improvement 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 annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a longitudinal central section of my washing-machine. Fig. 2 is a detail view of the slotted binding-plate. Fig. 3 is a vertical central sectional view of the rollers and base-plate. Fig. 4 is a sectional detail view of the base-plate, showing the vertically-adjustable coil-spring.

My invention relates to machines for washing clothes and the like; and the invention consists in the novel construction and arrangement of parts, as will be more fully hereinafter set forth, and pointed out in the claim.

Upon the inside of a tub, on opposite sides, I place two cleats—one having a mortise and the other a recess—and these receive a plate having two rigid slotted vertical standards, in the slots of which operates the main-roller shaft, having the operating crank or pulley. Two blocks having slots inclining upward in opposite directions serve as bearings for this shaft, and they are secured to spiral springs, which pass through the base-plate, and are vertically adjustable by being screwed down or up in said base-plate. The spiral spring on the crank end is free to be screwed down its entire length. A slotted plate on the bottom, actuated by a spring having a constant force tending away from the crank end, serves to hold the operating parts in the recess, while the mortise holds the crank end firmly. Two plain and two corrugated rolls furnish a dishing surface to correspond with the lower surface of the corrugated main roll.

Referring to the drawings, A represents the ordinary wash-tub, having cleat  $A^1$ , with mortise  $a^1$ , and cleat  $A^2$ , with recess  $a^2$ , on opposite inner sides. This mortise  $a^1$  and recess  $a^2$  receives a base-plate, B, having two standards,  $B^1$   $B^2$ , each slotted at  $b^1$   $b^2$ , and having screw-threaded apertures  $b$ , to receive adjustable spiral springs C, which are secured to

bearing-blocks D, each having slots  $d$  inclining upward in opposite directions.

The shaft E of the main roller F is provided with a crank, G, and said shaft operates in the slots  $b^1$  and in the slots  $d$  in the blocks D.

The springs C have a constant force tending to depress the main roll F upon two plain rolls, H, and two corrugated rolls,  $H^1$ , said rolls being journaled in the standards  $B^1$ , and arranged so as to present a concave surface to correspond with the lower surface of the main roll F.

A binding-plate, I, slotted at  $i$ , is held loosely to the base-plate B by pins or lugs  $i^1$ , and is actuated by a spring, J, having a constant force longitudinally to bear against the side of the tub and hold it in place.

The pins  $i^1$  are provided with nuts, and act simply as guides for the binding-plate.

Operation: The tub is filled partly full of water, and the goods to be washed are folded the breadth of the machine, and the end inserted beneath the main roll and run through into water on the other side until it gets to the ends of the goods, when the crank is reversed.

To remove it from the tub, lift the end farthest from the crank with sufficient force to overcome the force of the binding-spring J and pull or force it out of the mortise  $a^1$ .

To tighten the rollers to make the pressure greater on the goods, take the machine out of the tub, remove the main roller from the slots  $b^1$ , and screw the coil-springs C down into or through the plate B by turning the blocks D.

It will be observed that the slotted plate I and spring J allow my machine to be attached to tubs of different diameters.

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

In a washing-machine adapted to be fitted to tubs of different diameters, the base-plate B, provided with pins  $i^1$ , having nuts at their points, in combination with the slotted binding-plate I and the coil-spring J, for operating it, substantially as set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

JESSE M. CURTICE.

Witnesses:

JAS. GRADY,  
J. W. JONES,