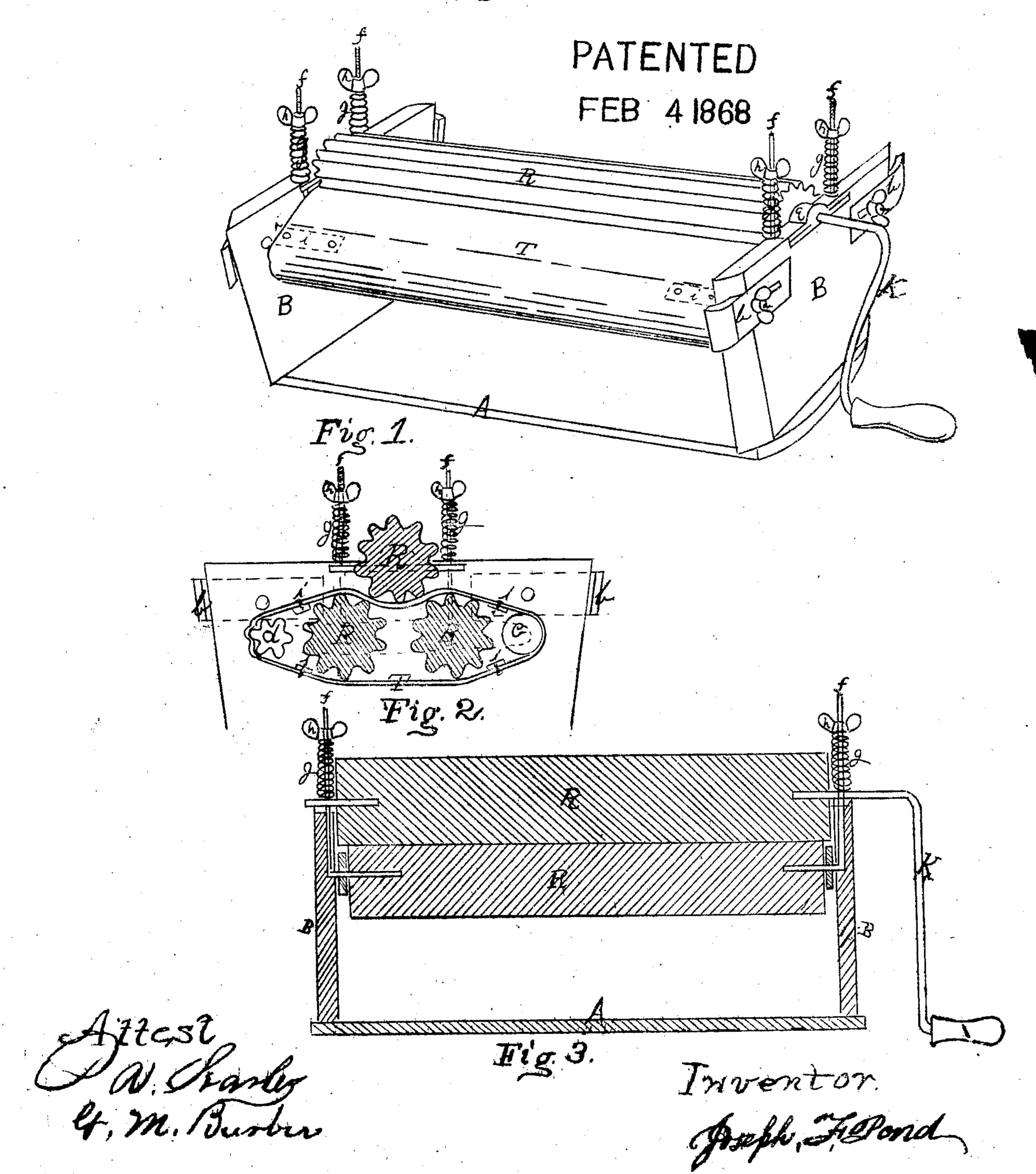
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J.F. Pond's Washing Machines



## Anited States Patent Pffice.

## JOSEPH F. POND, OF CLEVELAND, OHIO.

Letters Patent No. 73,996, dated February 4, 1868.

## IMPROVED WASHING-MACHINE.

The Schedule referred to in these Tetters Patent and making part of the same.

## TO ALL WHOM IT MAY CONCERN:

Be it known that I, Joseph F. Pond, of the city of Cleveland, in the county of Cuyahoga, and State of Ohio, have invented new and useful Improvements in Washing-Machines; and the following is a description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a perspective view of the machine.

Figure 2 is an end view of fluted roller d, and smooth roller c, and fluted yielding rollers R R, and endless belt T, with friction guide-pieces i i i attached, and upper fluted roller R.

Figure 3 is a sectional view of machine.

My invention consists, first, in the application to the endless apron or belt, narrow friction guide-pieces, i i i i, of metal, or its equivalent, attached to the edge of the belt by rivets, or otherwise, to prevent the apron from turning under or up at the sides while in use; second, the application of adjustable slide-pieces, attached to the end of the upright pieces B B, which supports the washing-mechanism, which can be adjusted to fit different-sized tubs very easily and quickly, and when applied and fitted thereto, makes the most perfect washing-machine; third, the use of a fluted or grooved roller, d, in combination with the endless apron or belt, T, for the purpose of holding the belt more easily, when a knuckle-action or rubbing is desired, than could be done were the surface of the roll smooth.

To enable others skilled in the art to make and use my invention, I will describe it more fully, referring to the drawings and letters marked thereon.

I make the frame, which supports the washing-mechanism, of wood and metal, or either, the base, A, being from four to eight inches in width, and seventeen inches, or more or less, in length. On each end of the base, A, are secured the upright pieces B B, which are of sufficient length to shape the circle of the tub. Attached to the end-pieces B B are adjustable sliding ears or bars b b, held firmly to their places by a bolt. The height of the upright end-pieces B B may vary from eight to twelve inches. On the centre of the upright pieces B B are secured metal boxes E E, in which the journals of the fluted roller R bear, the boxes E E extending out cach way from the centre sufficient to form guides for the rods ffff, which connect with the fluted yielding rollers R R and cross-bars ll. At one end of the cross-bars ll is secured a small fluted roller, d, and at the other end is a smooth roller, c. These are secured to the bars by screws. These rollers assist in the rotation of the endless belt T. Around and over the fluted roller d, and smooth roller c, and grooved yielding rollers R R, is an endless apron or belt, on which the clothes are placed, which convey the clothing to the action of upper roller, R, and under yielding rollers, R R. The upper roller, R, is operated by the crank K, by the action of the coiled spiral springs g g g g, around the rods ffff. The bed will oscillate and yield to conform to large or small quantities of clothes. The pressure may be regulated by the thumb-nuts h h h h, and when soiled clothes or portions of garments present themselves to the operator, he may clasp the apron and small grooved roller d with his left hand, and hold it firmly while he operates with the crank and roller R, which causes a knuckle-action or rubbing-process.

The advantage of the small roller d being grooved or fluted, is, the belt can be held more easily while rubbing clothes. This is very essential, as many who have washing to do have not strength to hold the belt while rubbing when the roller d is smooth.

Among the many advantages derived by the construction of my machine are, it is light, portable, and may be applied to a tub or box, and removed when the operator desires to change the water. Other advantages are, it does not become injured by drying, as it is not required to hold the water, but simply to support the washing-mechanism, and therefore may be removed from the wash-tub or box, and set upon a shelf out of the way when not in use. And in the third place, it can be furnished at a cost within the reach of nearly all families who have a wash-tub, and when applied thereto makes the most perfect machine.

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

- 1. The application of friction guide-pieces i, attached to the edge of the endless apron or belt, to prevent the apron from turning under or over, and getting out of place, as and for the purpose specified.
- 2. The adjustable slides b b, attached to the upright pieces B B by means of bolts or screws, as and for the purpose specified.

JOSEPH F. POND.

Witnesses:

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