J. F. POND.
Washing-Machine.

No. 200,756. Patented Feb. 26, 1878.

Fig. 1.

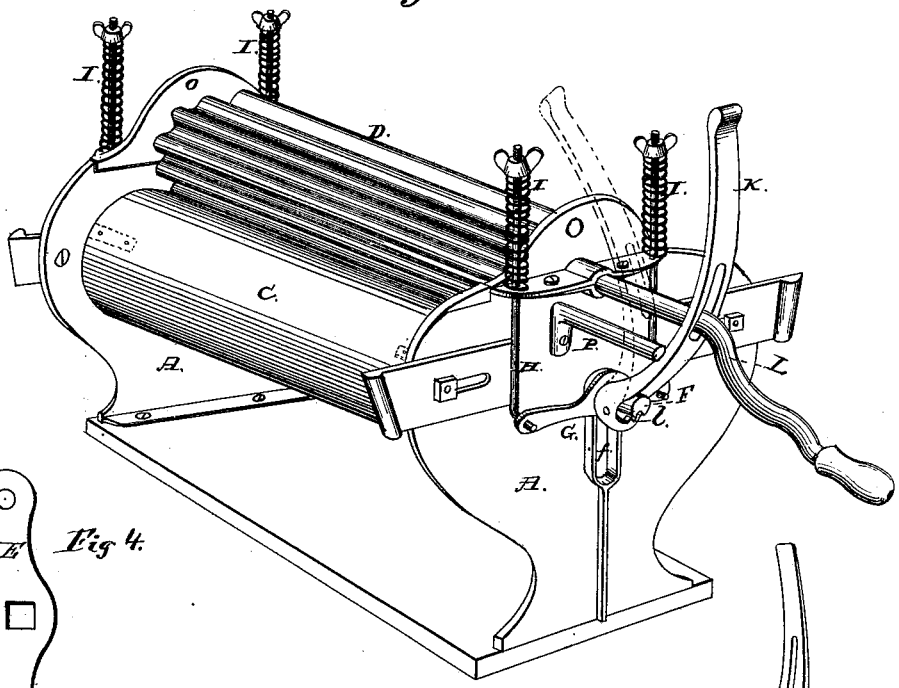



Fig 4.

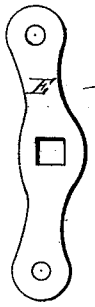



Fig. 3.

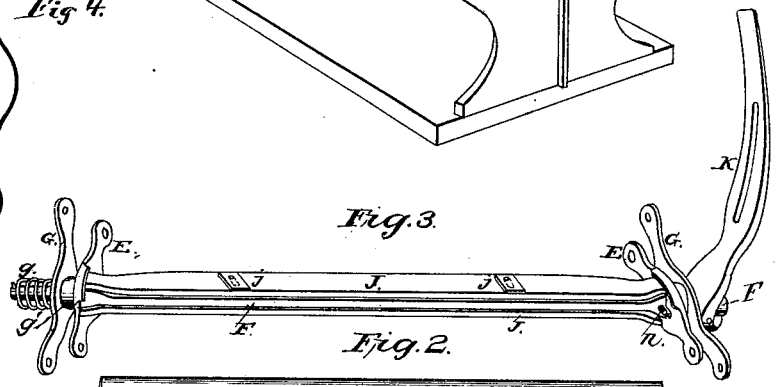
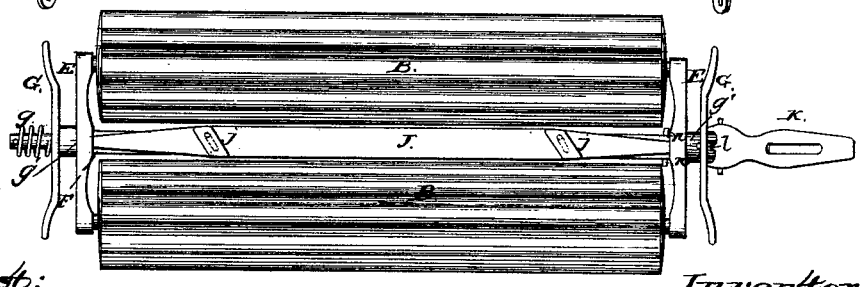



Fig. 2.




Attest:
Geo. H. Tibbetts
Andrew Squire

Inventor:
J. F. Pond

# UNITED STATES PATENT OFFICE.

JOSEPH F. POND, OF CLEVELAND, OHIO.

## IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. **200,756**, dated February 26, 1878; application filed June 1, 1877.

*To all whom it may concern:*

Be it known that I, JOSEPH F. POND, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Washing-Machines, which improvements are fully set forth in the following specification and accompanying drawing, in which—

Figure 1 is a perspective view of a washing-machine having my improvement attached. Fig. 2 is a detached view of the band-rolls having the locking device attached. Fig. 3 is a detached view of the locking device. Fig. 4 is a view of the oscillating lever in elevation.

The object of my invention is to furnish a device, in combination with the rolls of a washing-machine, whereby the rolls and their band may be held from turning, for the purpose of producing a rubbing movement when desired, and at the same time not to interrupt the vibrations of the springs.

Referring to the drawings, A A represent the ends or supports. B B are two corrugated lower rollers, covered with the band or belt C, above which is the corrugated rubbing-roll D, which meshes into and operates with them. The journals of the rolls B B are placed in the ends of oscillating levers E E. These oscillating levers F are hung upon the rock-shaft F, which is situated between the rolls B B, and passes out through vertical slots *f* in the ends or supports A A. Outside of the supports A A, on the shaft E, are two reciprocating bars, G G, which constitute the support for the shaft, and are connected with the reciprocating rods H H, depending from the springs I I. Upon the upper and lower sides of the shaft F are placed two bars, J J, the ends of which rest against the bars E E, and are attached to the shaft by means of pins playing in diagonal slots *j j*.

*g' g'* are hubs on the vibrating bars G G, which project through the slots *f* in the uprights A, and press against the bars E E, and prevent friction on the upright A when the lever K is pressed upward.

On one end of the shaft F is pivoted a slotted lever, K, the slot of which embraces the crank-shaft L, which prevents the lever from turning over. The lower end of this lever G is made in the form of a cam and perforated, so as to permit the end of the rock-shaft F to pass through it, and on the upper and lower side of the slot thus formed are provided the lugs *l l*, which are forced into corresponding recesses formed in the rock-shaft F when the lever is pushed up into the position seen in dotted lines in Fig. 1. These lugs serve to prevent the shaft and rubbing-bed from rocking when the lever is thus pushed up in position. The object of the cam on the lever is to draw the shaft outward when the lever is pushed up, as stated, for the purpose of forcing the bars J J into the corrugations of the rolls B B, by means of the pins and diagonal slots *j j*.

The rolls are prevented from oscillating by means of lugs *n n*, which are forced into corresponding recesses in the bars E.

The opposite end of the shaft F is made square or non-circular in form, to correspond with the hole or socket in bar E, through which it has free longitudinal movement, but is arranged and constructed so that the shaft and bar will oscillate together. This end of the shaft F also passes out through the bar G, and is provided with a spring, *g*, for drawing it back when released from the pressure of the lever K.

The upper portion of the journal-boxes for the crank-shaft L have high plates or flanges O, which abut against the ends of the rubbing-roll D, and prevent the water in the corrugations of the rubbing-roll from running over outside.

The operation of my device is as follows: When it is desired to produce a rubbing process the lever K is pushed up, as before described, with the left hand of the operator, which causes the bars J J to enter the corrugations of the rolls B B, and thus prevent their revolving for the time, and enables the article to be rubbed between the roller D and the band on the lower corrugated rolls B B, accomplishing a result similar to that effected by the hands on a wash-board.

If desired, the device may be arranged so that the lever K will, by its slot, embrace the pin P instead of the crank-shaft; but I prefer the latter.

When the rollers B B are locked by the bars

J J the belt is still allowed to revolve, which aids in carrying the clothes being rubbed over the corrugated rolls B B.

I claim—

1. A locking-bar placed between the rolls B B, which meshes into the corrugations of both rolls at the same time, for the purpose of stopping the rotation of the rolls.

2. The slotted lever K, in combination with the crank-shaft L or pin P and the rock-shaft F, substantially as and for the purpose specified.

3. The reciprocating sliding bars J J, in combination with the rock-shaft F and oscillating bars E E and rolls B B, substantially as and for the purposes set forth.

4. The oscillating bars E E, having recesses to receive the lugs *n n* on rock-shaft F, when the slotted lever K is pushed forward, to prevent the rolls B B from oscillating, as and for the purpose specified.

5. The oscillating bar E, provided with a non-circular opening, in combination with rock-shaft F, having near one end a bearing-surface of form corresponding with said opening, whereby the said rock-shaft and bar oscillate together, and the rock-shaft is allowed free longitudinal motion, as specified.

6. The combination of the vibrating bar G, having hub *g'*, projecting through slot *f* in upright A, adapted to press against the oscillating bar E, as shown, with the lever K, to prevent friction on the upright A, as specified.

J. F. POND.

Witnesses:
SAMUEL OSTERHOLD,
GEO. W. TIBBITTS.