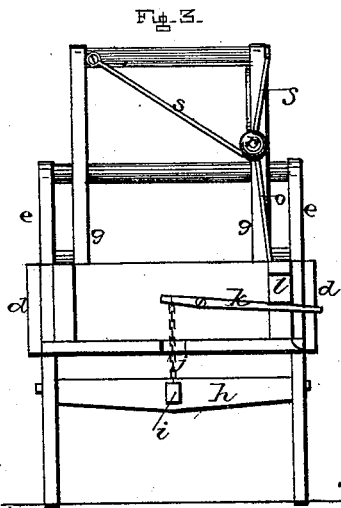
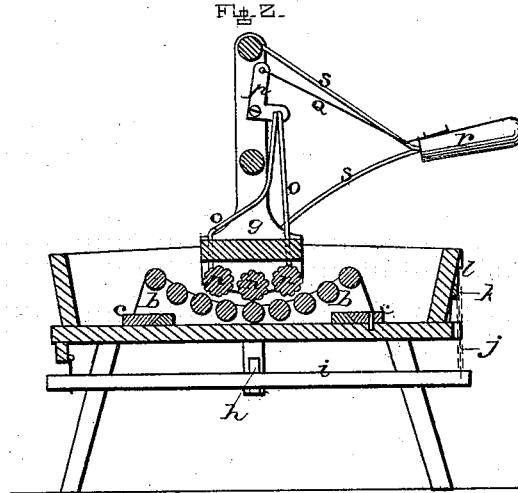
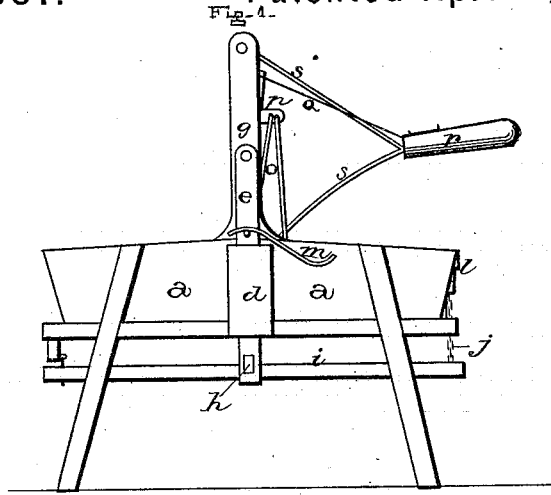


J. R. UNDERWOOD.
Washing-Machine.

No. 202,307.

Patented April 9, 1878.



WITNESSES.

J. W. Garner
W. S. Haines

INVENTOR
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UNITED STATES PATENT OFFICE.

JOHN R. UNDERWOOD, OF HILLARD, OHIO.

IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. **202,307**, dated April 9, 1878; application filed February 13, 1878.

To all whom it may concern:

Be it known that I, JOHN R. UNDERWOOD, of Hillard, in the county of Franklin and State of Ohio, have invented certain new and useful Improvements in Washing-Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in washing-machines; and it consists in the arrangement and combination of devices whereby the rollers of the rubber can be locked rigidly in position when desired, so as to wash the top or the bottom of the clothes, and the lever and springs, by means of which the rubber can be raised above or depressed upon the clothes, all of which will be more fully described hereinafter.

The accompanying drawings represent my invention.

Figure 1 is a side elevation of my invention. Fig. 2 is a longitudinal vertical section; and Fig. 3 is an end view of the same.

a represents an ordinary rectangular tub of any desired size or construction. To the bottom of the center of this tub is attached a roller-frame, *b*, by means of the two buttons *c*. This frame has a number of rollers fastened in it in such a manner that their tops form an arc of a circle, and upon which the clothes are placed for the purpose of being washed. This frame *b* is made readily removable, so that it can be taken from the tub to be cleaned and to allow the tub to be kept clean.

Secured to two opposite sides of the tub are the guides *d*, up through which pass the vertically-adjustable standards *e*, in the upper ends of which is journaled the rubber *g*. The lower ends of these standards are connected together by means of the cross-bar *h*, through the center of which passes the long lever *i*, which is pivoted or otherwise fastened at one end of the tub, and which has a chain or cord, *j*, for connecting it with the lever *k* at the other. The lever *k* is pivoted upon the end of the tub, and is made to catch

under the shoulders or ratchets *l*, cut upon the end of the tub, for the purpose of holding the rubber in a raised position. To each side of the tub is fastened a suitable spring, *m*, one end of which catches over a stud or projection upon the vertically-adjustable standards *e*, for the purpose of depressing the rubber upon the top of the roller-frame *b*, whenever the lever is released.

The rubber-frame is provided with any desired number of rollers *n*, all or a portion of which are provided with notches, holes, or other catches, in between the flutes, so that the lower ends of the locking-rods *o* can catch in them, and prevent them from revolving around as the rubber is moved back and forth over the roller-frame *b*. There will be one of these locking-rods for each one of the rollers that is to be held stationary, and each one of the rods has its upper end fastened to the cranked lever *p*, which is pivoted inside of the upper part of the rubber-frame.

To the upper end of the cranked lever is attached a rod, *q*, which extends over and passes through a loop upon the top of the handle *r*, so as to always be where it can be readily and easily taken hold of by the hand, and thus the rollers can be locked in position at any moment. This handle is rigidly connected to the rubber-frame by means of the three braces, *s*, or by means of any suitable device. By means of this handle the rubber-frame can be moved back and forth over the top of the roller-frame *b* as rapidly or slowly as may be desired.

As soon as the lever *j* upon the end of the tub is caught under the lower notch or shoulder, the rubber-frame will be raised above the top of the rollers, and can be swung freely back and forth over without coming in contact with them.

The clothes are placed upon the roller-frame *b*, when they are moved back and forth over the rollers, for the purpose of washing them. When the rollers in the rubber-frame are locked in position the under side of the clothes will be washed, and when the rollers in the rubber-frame are allowed to revolve, the upper portions will be washed. By thus locking the rollers in position in the rubber-frame, the clothes can be moved toward or from the op-

erator without the trouble of touching them with the hands.

I am aware that a rubber-frame provided with three rollers and a device for locking one or more of the rollers in position is not new, and this I disclaim.

Having thus described my invention, I claim—

1. The combination of the roller-frame, provided with the rollers *n*, having holes or notches in one end, the locking-rods *o*, lever *p*, rod *q*, and handle *r*, substantially as described.

2. The combination of the tub *a*, guides *d*, standards *e*, cross-bar *h*, lever *i*, chain *j*, lever *k*, and springs *m*, whereby the rubber-frame is made vertically adjustable above the roller-frame *b*, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 30th day of January, 1878.

JOHN R. UNDERWOOD.

Witnesses:

ORANGE SELLS,

M. W. WAMBAUGH.