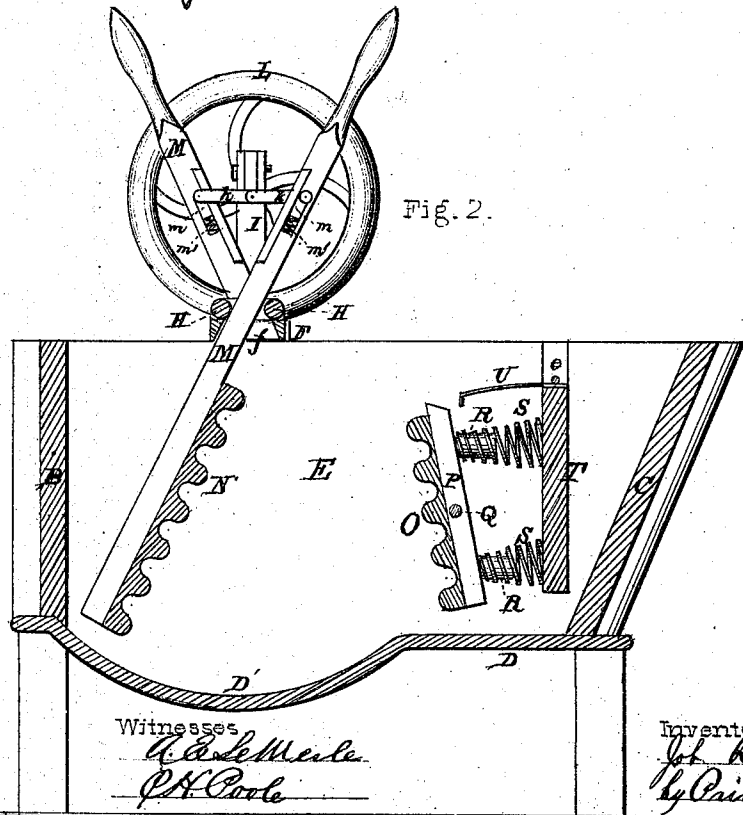
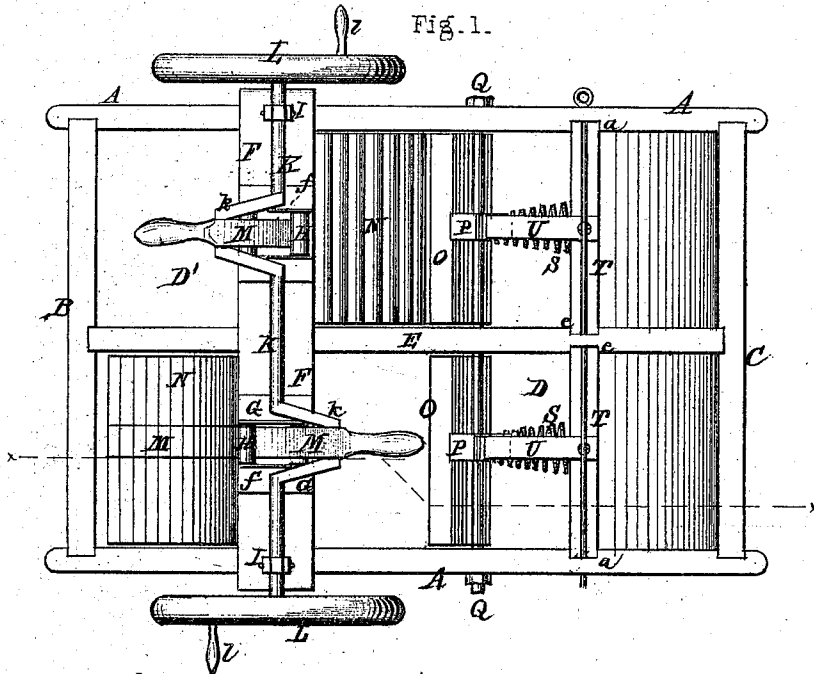


J. Robinson,

Washing Machine.

No. 102,972.

Patented May 10, 1870.



Witnesses
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JOB ROBINSON, OF LAWRENCE, KANSAS.

Letters Patent No. 102,972, dated May 10, 1870.

IMPROVED WASHING-MACHINE.

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

To all whom it may concern:

Be it known that I, JOB ROBINSON, of Lawrence, in the county of Douglas and in the State of Kansas, have invented certain new and useful Improvements in Washing-Machines; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing making a part of this specification, in which—

Figure 1 is a plan view of the upper side of my device, and

Figure 2 is a vertical longitudinal section of the same, on the line $x x$ of fig. 1.

Letters of like name and kind refer to like parts in each of the figures.

My invention belongs to a class of devices having for its object the cleansing of soiled clothing by mechanical means; and

It consists, principally, in the construction and operation of the rubbers, as is hereinafter set forth.

It also consists in the general construction and arrangement of the various parts of the whole device, as is hereinafter specified.

In the annexed drawing—

A and A represent the sides of the trough or water-reservoir secured together at their ends by means of a vertical and an inclined end piece, B and C, respectively, and the whole inclosed at their lower side by means of a bottom, D, one-half, transversely, of which, D', curves downward, as seen in fig. 2.

A partition, E, extending longitudinally through the center of the trough divides it into two watertight compartments.

Secured transversely across the upper side of the trough, immediately over the center of the semicircular depression D' of the bottom, is a bar, F, having in and through the same two slots f , which are placed midway between the sides A and the partition E.

An angular metal plate, G, is secured upon the bar F at each end of the slot f , and serves as a bearing for one end each of two rollers H, which are pivoted within said plates, and extend inward slightly beyond the sides of said slot.

Rising vertically from the bar F, near its ends, are two standards I, within which is journaled a shaft, K, provided with two cranks k , placed directly over the slots f , and having secured to or upon each end a wheel, L, provided with a handle, l , extending horizontally outward from the rim thereof.

Journaled upon each crank k is a bar, M, which, passing downward through the slot within the bar F, has secured transversely upon its inner face a corrugated or grooved board, N, having a length somewhat less than the width of the compartment.

Within each compartment is a second grooved board

or rubber, O, corresponding in length to that before described, and attached to one side of a short bar, P, which is pivoted to or upon a metal rod, Q, passing transversely through the trough.

Two pins or studs R, projecting rearward from the back side of each bar P, near its ends, receive the small ends of two spiral springs S, the opposite ends of which are secured to or upon the face of a board, T, that, extending between the side A and the partition E, rests within suitable grooves a and e , respectively, cut in the face of each.

As thus constructed the device is ready for use, as follows:

A suitable quantity of suds having been supplied to each compartment of the trough, and the soiled clothes placed within one of said compartments, the shaft is turned inward, or so as to cause the operating-rubbers to pass downward toward the end of the trough, swing forward, and then rise near the fixed or pivoted rubbers, by which means the clothes are rolled over, so as to present a new surface to the action of the rubbers at each revolution of the shaft.

The rubber N strikes the clothes at the forward end of the trough, and from thence carries them, together with a large proportion of the water, forward against the second rubber O, after which, by an upward movement, said clothes are thoroughly beaten and rubbed between the grooved surfaces until released by the forward motion of the rubber N, when they are shot forward by their weight, and the action of the water, in time to receive the next stroke of the operating-rubber.

It sometimes occurs that an accumulation of clothes at the forward end of the trough would prevent the rubber N from passing downward sufficiently to permit the crank to turn; to guard against which, the lower side of the crank bearing within the bar M is formed by a block, m , that has a free longitudinal motion within a slot cut in said bar.

A spiral spring m' , placed between the lower ends of the block m and the slot, holds the former against the crank with sufficient force to insure the operation of the rubber under ordinary circumstances, while, in case of an accumulation of clothes beneath said rubber, as before stated, said spring will yield so as to allow said block to be pressed downward, and enable the crank to complete its revolution.

After the clothes have been washed sufficiently in one compartment, a wringer is placed upon the partition C, and said clothes passed into the fresh suds within the second compartment, and their place filled with a fresh supply of soiled or unwashed clothing.

In order to furnish a hand wash-board for use in rubbing some portions of the clothing that are more

than usually soiled, a spring catch, U, is secured at one end upon the upper edge of the board F, and extending forward engages with the upper end of the bar P, when said bar is turned to the rear, in which position the rubber O has a suitable inclination to enable it to be readily used for hand work.

Having thus fully set forth the nature and merits of my invention,

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

The means employed for imparting a motion to, and controlling the operation of the rubbers N, consisting of the rollers H, the shaft K, provided with the cranks k, and the bars M, substantially as shown and described.

Also, in combination with the above, the blocks or

boxes m, working longitudinally within the bars M, and held in position against the cranks k by means of the spring m', substantially as and for the purpose set forth.

Also, the means employed for securing in position, and rendering adjustable the rubbers O, consisting of the bars P, pivoted upon the rods Q, the studs R, the springs S, and the catches U, substantially as shown and described.

In testimony that I claim the foregoing, I have hereunto set my hand, this 30th day of March, 1870.

JOB ROBINSON.

Witnesses:

GEO. S. PRINDLE,

SAML. S. MARR,

EDM. F. BROWN.