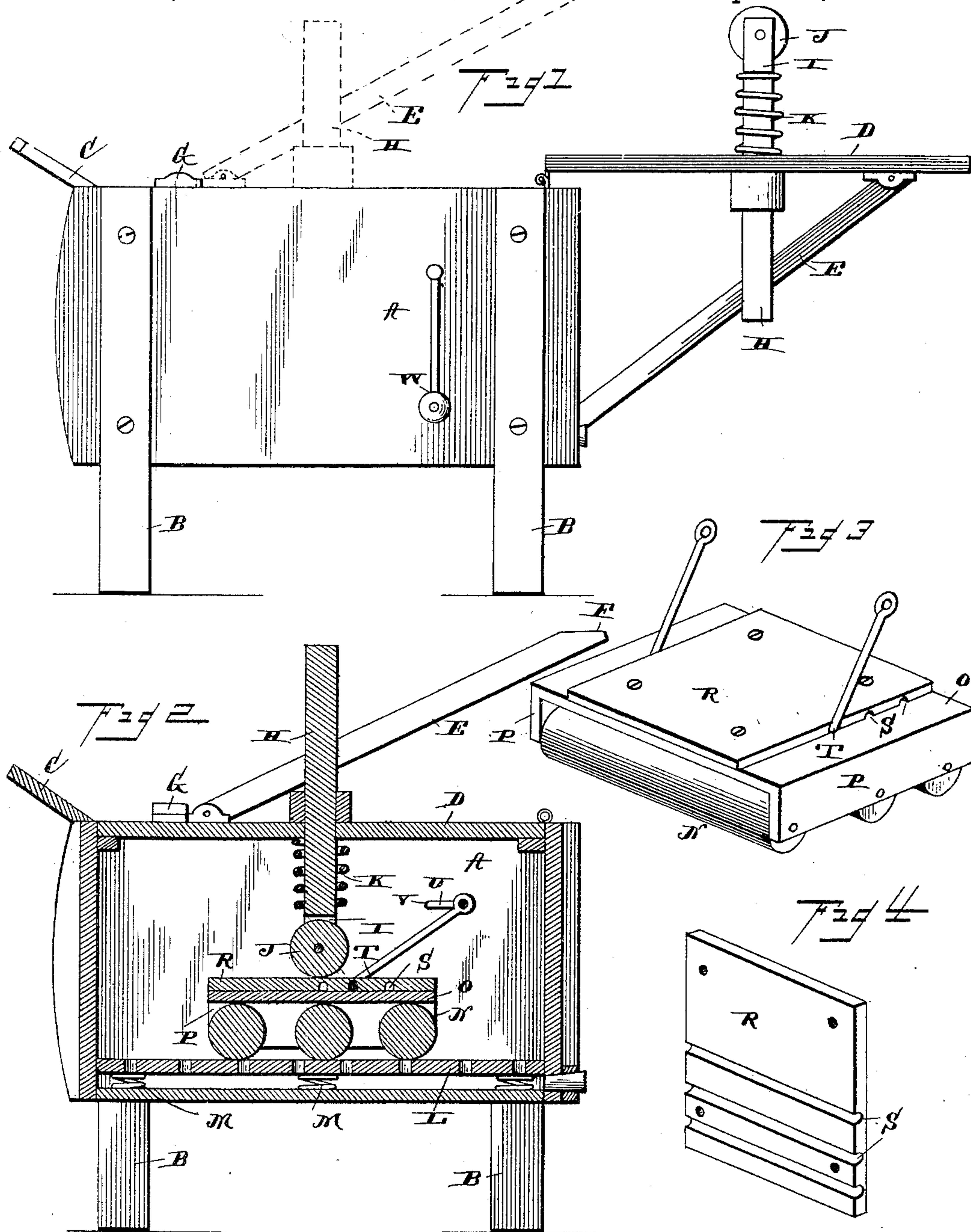


(No Model.)

M. LUMLEY.
WASHING MACHINE.

No. 450,727.

Patented Apr. 21, 1891.



WITNESSES
John Smirre
R. W. Bishop.

INVENTOR
Mary Lumley.
By *C. A. Snow*
her Attorneys

UNITED STATES PATENT OFFICE.

MARY LUMLEY, OF VERSAILLES, MISSOURI.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 450,727, dated April 21, 1891.

Application filed December 8, 1888. Renewed March 13, 1891. Serial No. 384,880. (No model.)

To all whom it may concern:

Be it known that I, MARY LUMLEY, a citizen of the United States, residing at Versailles, in the county of Morgan and State of Missouri, have invented new and useful Improvements in Washing-Machines, of which the following is a specification.

My invention relates to improvements in washing-machines; and it consists in certain novel features hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a side elevation of a washing-machine embodying my improvements. Fig. 2 is a central vertical longitudinal section. Fig. 3 is a detailed view of the rubber. Fig. 4 is a detail view of the clamping-plate.

Referring to the drawings by letter, A designates a tub supported on suitable legs B B, as shown, and provided on its upper side with the rail C, to which the wringer is attached in the operation of the device. The tub is further provided with the lid D, to the upper side of which is pivoted a prop E, which is adapted to rest against the end of the tub and the shoulder F thereon to support the lid when it is turned back. The lid is held closed by the buttons G G, pivoted on the upper edges of the sides of the tub and having their ends projecting over the lid. A vertical standard H is mounted loosely in the lid at about the center of the same, and is provided at its lower end with an enlarged bifurcated portion I, as clearly shown. A roller J is mounted in the bifurcated portion, and a spring K is coiled around the standard between the under side of the lid and the shoulders of the bifurcation. The said standard is thus held normally depressed, so that the roller will bear upon the clothes and the rubber.

The tub is provided with a loose perforated false bottom L, which is supported upon the true bottom of the tub by the coiled springs M, so that it will yield to the pressure exerted thereon as the rubber is moved back and forth.

The rubber N consists of a plate O, having depending flanges P at its side edges and a series of rubbing-rollers journaled in and extended between said flanges. To the upper side of the plate O, I secure a clamping-plate R, which is provided on its under side with a

series of transverse grooves S, in which is fitted the cross-bar of a U-shaped pitman T, the end of said pitman being pivoted to the crank-shaft U. The said crank-shaft has one end mounted in a socket V, secured in one side of the tub and its other end journaled in and extending through the opposite side of the tub. An operating crank-handle W is secured to the projecting end of the crank-shaft.

In practice the clothes are placed in the tub upon the perforated false bottom and soap and water added in proper quantities. The rubber is placed on the clothes and the crank-shaft then rotated, so as to reciprocate the said rubber over the clothes. As the rubber is moved back and forth it will depress the clothes, and thereby cause the perforated false bottom to vibrate at its ends. As one end goes down it will project the water at that end of the tub upward through the perforations, so as to act on the clothes, and at the same time the other end of the false bottom will be raised, so as to draw the water downward through the clothes. As the rubber is moved back and forth the clothes will be agitated, so as to effectually separate the dirt therefrom, and it will be held against the clothes by passing under the standard H in the lid.

From the foregoing description it will be seen that I have produced a washing-machine in which the clothes will be quickly and effectually cleansed. The water is forced through the clothes alternately in opposite directions, and the peculiar construction of the rubber prevents its allowing the water to escape from above the clothes and retains it, so that it will be pressed through the same. When the cross-bar of the pitman engages the central transverse groove of the clamping-plate, the rubber will be caused to move equally in both directions. It may sometimes, however, be desired to have the rubber move nearer one end of the tub than the other end for the more convenient handling of the clothes. The desired change can be effected by causing the pitman to engage one of the grooves nearer the end of the tub, as will be readily understood. After the clothes have been washed and it is desired to remove them from the tub, the lid is thrown back to the position shown in Fig. 1 and will be sup-

ported in that position by the prop, as clearly shown. A wringer is then attached to the rail C and the clothes taken from the machine and passed through the wringer in the usual
5 manner.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

The combination, with the tub, of the crank-
10 shaft mounted therein, means for rotating the said crank-shaft, the rubber arranged within the tub, the clamping-plate secured to the upper side of the rubber and having a series of

transverse grooves in its lower face, and the U-shaped pitman having its ends pivoted to 15 the crank-shaft and its U-shaped portion fitting in one of the grooves of the clamping-plate, as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in 20 presence of two witnesses.

MARY LUMLEY.

Witnesses:

W. D. MCNAIR,
JAMES MCNAIR.