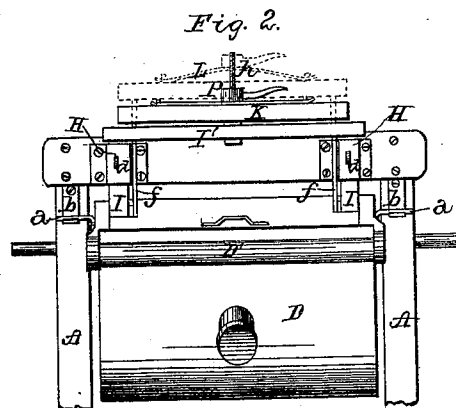
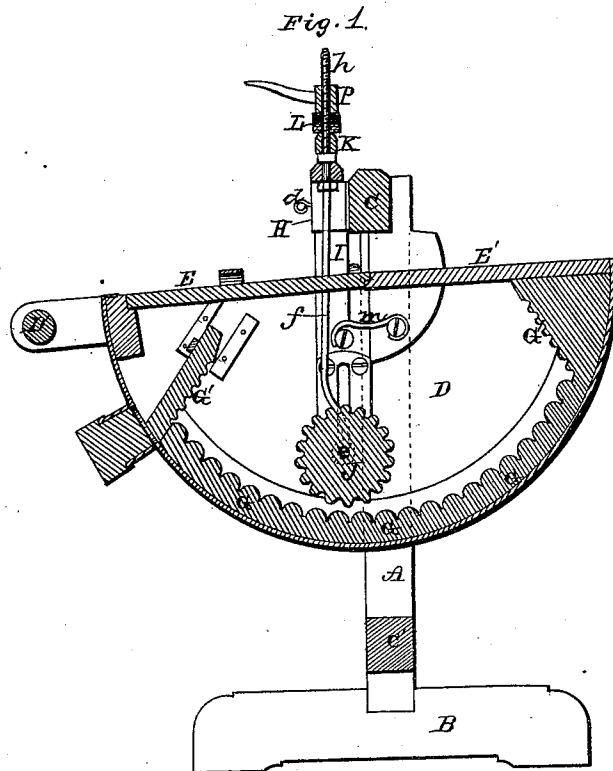


J. H. CHRISTOPHER.
 WASHING-MACHINE.

No. 177,374.

Patented May 16, 1876.



WITNESSES.

R. W. Barnes
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INVENTOR.

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UNITED STATES PATENT OFFICE,

JAMES H. CHRISTOPHER, OF WHITE OAK, ILLINOIS.

IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. 177,374, dated May 16, 1876; application filed March 18, 1876.

To all whom it may concern:

Be it known that I, JAMES H. CHRISTOPHER, of White Oak, in the county of Montgomery and State of Illinois, 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.

The nature of my invention consists in the construction and arrangement of a washing-machine, and is fully illustrated in the accompanying drawing.

A A represent vertical posts or standards, supported upon suitable feet B B, and connected by means of top and bottom cross-bars C C', to form a strong and firm frame for my washing-machine. D represents a semicircular washing-box, suspended by means of short rods or journals *a a*, projecting from the sides of the box in the center at the upper edge, and resting in hooked or bent plates *b b*, secured on one side at or near the top. The box D is formed of semicircular wooden sides, with a metallic bottom secured thereto, and at one end of the box is a handle, D', by means of which the box is easily rocked back and forth on its journals. The top of the box is closed by means of one movable lid, E, and one stationary lid, E'. On the bottom of the box D is secured a corrugated wash-board, G, made curved to conform to the shape of the bottom, and at each end is an inclined corrugated board, G', that under the movable lid E being also movable for the easy insertion and removal of the clothes, said board being held in cleats on the sides of the box. On the front of the top cross-bar C of the frame are secured two metal loops, H H, through which are passed vertical bars I I, connected at their upper ends by a cross-bar, I', and held in said loops at the desired height by means of pins *d d*. J represents a longitudinally fluted or corrugated washing-roller, the journals *e e* of which pass through eyes in the lower ends of two

rods, *f f*, and project into vertical slots or grooves in the lower ends of the bars I I. The rods *f f* pass upward through the cross-bar I', and their upper ends are pressed upon by a bar, K, which is actuated by a spring, L. Through the cross-bar I' is passed from below a bolt, *h*, which passes upward through the bar K and spring L, and a lever-nut, P, is screwed upon the upper end of said bolt by means of which the tension of the spring L is easily regulated, and consequently also the pressure of the roller J.

For putting in the clothes and otherwise preparing for washing, the box D is unhooked and rests upon the bottom cross-bar C' of the frame, the lid E and wash-board G' underneath the same being removed.

When ready for washing these parts are put back again, the box suspended on the hooks *b*, and the roller J adjusted to the proper height, according to the quantity of clothes in the box, by means of the pins *d*, and the tension of the spring L also regulated, when, by simply rocking the box backward and forward, the clothes are quickly and thoroughly cleansed and washed.

The roller J and its frame I I' are held stationary while washing by means of hooks *m m*, as shown.

For working the machine by hand-rubbing the rub-board that rests in the cleats is removed and placed in the front of the machine.

When necessary for putting the clothes in, remove the lid and place them in on top of the roller, and then commence operating machine, and the roller will immediately take them under and thoroughly scour them.

To remove them from the tub take the pins from the caps and unlatch the frame from the supporting-braces; then raise the frame to the required height, and the clothes are easily removed.

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

1. The combination of the vertical bars I, having slots in their lower ends for the vertical adjustment of the roller J, with the ele-

vating-rods *f*, bar *K*, spring *L*, screw-rod *h*, and nut *P*, substantially as shown.

2. The combination of the frame *I* *I'*, adjusted in the loops *H* by the pins *d*, the rods *f*, bar *K*, spring *L*, and bolt *h*, with lever-nut *P*, all substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 6th day of March, 1876.

JAMES H. CHRISTOPHER.

Witnesses:

W. I. WOODRUFF,
J. WILL HAINES.