

UNITED STATES PATENT OFFICE.

JOHN H. DOUB AND FABIVS ROBBINS, OF WALNUT, KANSAS; SAID ROBBINS
ASSIGNOR TO SAID DOUB.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 384,311, dated June 12, 1888.

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To all whom it may concern:

Be it known that we, JOHN H. DOUB and FABIVS ROBBINS, citizens of the United States, residing at Walnut, in the county of Crawford and State of Kansas, have invented new and useful Improvements in Washing-Machines, of which the following is a specification.

Our invention relates to improvements in washing-machines; and it consists in a certain novel construction and arrangement of parts for service, fully set forth hereinafter, and specifically pointed out in the claims.

In the accompanying drawings, Figure 1 is a perspective view of our invention. Fig. 2 is a longitudinal section with the rubber thrown back in dotted lines. Fig. 3 is a transverse section. Fig. 4 shows detail views of one of the sockets for the wringer-bar, rosette for the upper end of the support, and of the swinging arm for the rubber.

Referring to the drawings by letter, A designates the body of the washer, which is semi-circular in longitudinal section, the bottom and sides thereof being preferably of galvanized iron, with the bottom corrugated or fluted to form a rubbing-surface.

BB are longitudinal side bars disposed along the upper edge of the body A and extended beyond the ends of the said body to form the handles *b b* and secured in place by the long transverse bolts *b' b'*, which pass through the said bars and the loops or sleeves *a*, formed at the upper edges of the corrugated bottom.

The standards of the machine comprise on each side the inclined legs CC, which converge toward the upper ends and bear against each other at their upper ends, and are there held in place by the rosettes or plates D, which are secured on the outer sides of the legs by the bolts D' that pass through the centers of the plates, the legs, and the sides of the tub or body A and are held in place by nuts. Depending ears E are secured on the lower edges of the said body, through perforations in which and the said legs are passed bolts to secure the legs in position. The rosettes D are provided with ears *d*, to catch under the bars B to hold the rosettes from turning, and the said ears also pass on each side of the upper ends of the legs to hold the same tightly together.

G designates a wringer-bar resting across

one end of the body and removably fitted at the ends in grooves *ff* in the brackets or supports FF, which are secured in place by the bolts *b' b'*, before mentioned. A plate, *g*, is secured to the lower edge of the said wringer-bar, adapted to pass down on the inside of the upper edge of the body of the washer, to prevent water from being thrown out between the said upper edge and the lower edge of the wringer-bar.

HH are swinging arms pivoted near the end of the body, on the inner side, and having the ends thereof at the center of the length of the body, to which are pivoted the handles or levers I of the rubber K. The said rubber K is secured to the lower ends of the handles below the pivoted points thereof, and the lower side thereof corresponds in curve with the curve of the bottom of the tub. The bottom of the rubber is formed of slats, which are fluted or corrugated on the lower side. A handle-bar, I', is secured at the ends in the upper extremities of the handles I.

The upper sides of the free ends of the swinging arms H are provided with the supporting-arms H' H', having hooks *h h* on the upper ends to engage over the upper edge of the tub and held the rubber a short distance above the bottom of the tub, to prevent it from touching the same when it is oscillated. It will also be seen that the arms hold the rubber away from the sides of the suds box or body, being bent inwardly slightly at the free ends.

It will be seen by referring to Fig. 2 that the rubber may be elevated and withdrawn from the tub by simply drawing the handles back, thus enabling the articles to be cleansed to be arranged in the tub. When the rubber is again swung back in the tub, the hook on the ends of the supporting arms H' engage over the upper edges of the machine-body and support the rubber at the proper height in the tub.

To operate the rubber, the upper ends of the handles are swung forward and backward, thus causing the body of the rubber to rub the clothes between its lower side and the bottom of the tub in much the same manner as clothes are rubbed by hand on the ordinary wash-board.

The machine is very effective, and the construction thereof is such that all points liable to strain are carefully and strongly braced. The manner of securing the legs is very simple, and at the same time they are very firmly fixed in position. Particular stress is laid on the fitting of the brackets F to the wringer-bar. The latter is not secured to the suds-box, but merely rests upon the upper edge thereof, and is secured in place by the brackets F, which brackets are in turn secured to the handle-bar B by the bolts *b'*, the latter serving also to suspend the corrugated bottom in the suds-box. The bolt *b'* thus secures the corrugated bottom, the handle-bars B, and the brackets F, supporting the wringer-bar. The said wringer-bar may be withdrawn from the brackets at will.

Having thus described our invention, we claim—

1. The combination of the body or tub, swinging arms pivoted at one end to the sides of the tub, the rubber pivoted to the free ends of said arms, and the supporting-arms extending upward from the swinging arms and engaging the upper edges of the sides of the tub, substantially as set forth;

2. In a washing-machine, the combination

of the tub A, bars B B, secured to the upper edges thereof, and having their ends extended to form handles *b b*, grooved brackets F F, secured to the bars B B, and the wringer-bar G, removably fitted at its ends in the said brackets, substantially as and for the purpose set forth.

3. In combination with the suds-box, the brackets F, the wringer-bar removably fitted in the brackets, and the splash-plate *g*, secured to the lower edge of the said bar and passing within the upper edge of the tub, substantially as specified.

4. In combination with the suds-box having the corrugated bottom, the bolts *b'*, passing through the ends of the corrugated bottom and the sides of the suds-box, the brackets F, held to the sides of the suds-box by the bolts *b'*, and the wringer-bar fitted in the brackets, substantially as specified.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in presence of two witnesses.

JOHN H. DOUB.
FABIUS ROBBINS.

Witnesses:

S. C. MORGAN,
J. V. PIERCE.