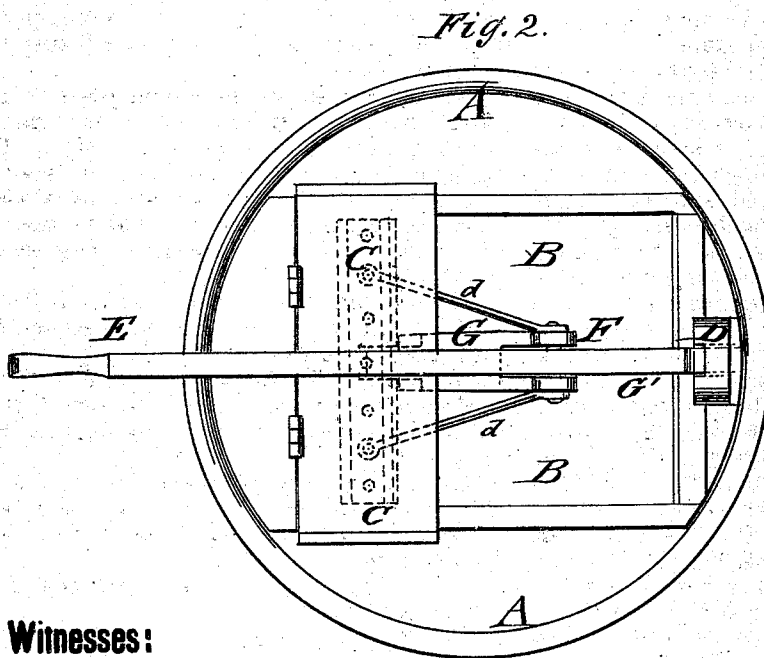
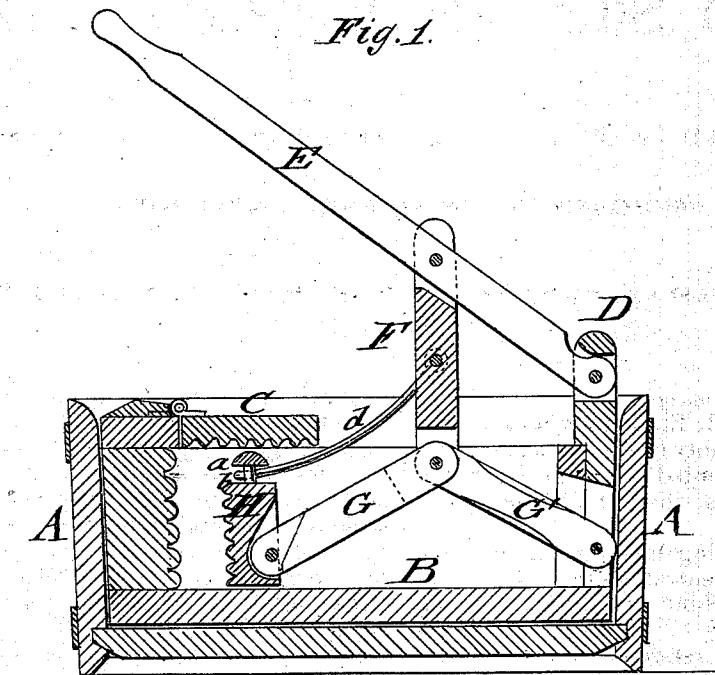


E. MARSHALL.
Washing-Machines.

No. 146,602.

Patented Jan. 20, 1874.



Witnesses:

E. Wolff
Druggist

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Per

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UNITED STATES PATENT OFFICE.

ELBRIDGE MARSHALL, OF TORONTO, KANSAS.

IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. **146,602**, dated January 20, 1874; application filed November 8, 1873.

To all whom it may concern:

Be it known that I, ELBRIDGE MARSHALL, of Toronto, in the county of Woodson and State of Kansas, have invented a new and Improved Washing-Machine, of which the following is a specification:

In the accompanying drawing, Figure 1 represents a vertical central section of my improved washing-machine, and Fig. 2 is a top view of the same.

Similar letters of reference indicate corresponding parts.

The invention will first be fully described, and then pointed out in the claim.

In the drawing, A represents the wash-tub, and B the oblong washing-box, which is rounded off and tapering at the corners to be fitted firmly into the wash-tub. One side of the washing-box B, against which the clothes are pressed, is suitably grooved, and has hinged to it the partial top C, which is also grooved or corrugated at the lower side for rubbing the clothes thereon. At the opposite end of the box B is a strong support, D, to whose upper end the hand-lever E is pivoted, which connects, by the vertical rod F, with the toggle-levers G G'. The vertical rod F is pivoted to lever E at its upper end and levers G G' at the lower end. The toggle-levers G G' extend in longitudinal but opposite directions in box B, lever G being pivoted to a vertical plate or beater, H, while the other, G', is pivoted to the lower part of support D. The upper part of beater H is provided with a rounded-off bar, *a*, which presses the clothes toward the top-grooved piece C. Top bar *a* is connected to beater H, and carried thereon by short rods or pins *b*, which form open spaces for the pas-

sage of the water above beater H on pressing the clothes against the sides of the box B. Metallic rods *d* pass from the top of the beater H to the sides of vertical rod F, stiffening the beater, and securing a vertical position of the same in its forward and return motion in box B. The clothes are placed in box B, between the grooved side and the beater H, the top closed down, and a sufficient quantity of water added thereto. The lever E is then worked up and down, which produces the reciprocating motion of the beater by the action of the toggle-levers, and thereby the rubbing, pressing, and squeezing of the clothes till they are perfectly cleaned.

The attachment of the washing-box to the tub obviates an extra bottom of wood or metal, which is liable to leakage or corrosion. The whole machine may, therefore, be furnished at less expense and the tub used separately while fully preventing leakage, and making the machine handier and more useful during its operation.

This machine may also be used for pressing lard by putting the lard in a bag between the beater and the side, and placing it in an inclined position for the clear lard to run off.

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

The horizontally-reciprocating beater H, having the rounded bar *a* on top, combined with the hinged horizontal rubber C, as and for the purpose described.

ELBRIDGE MARSHALL.

Witnesses:

THOS. W. TODD,
JOSEPH J. LLOYD.