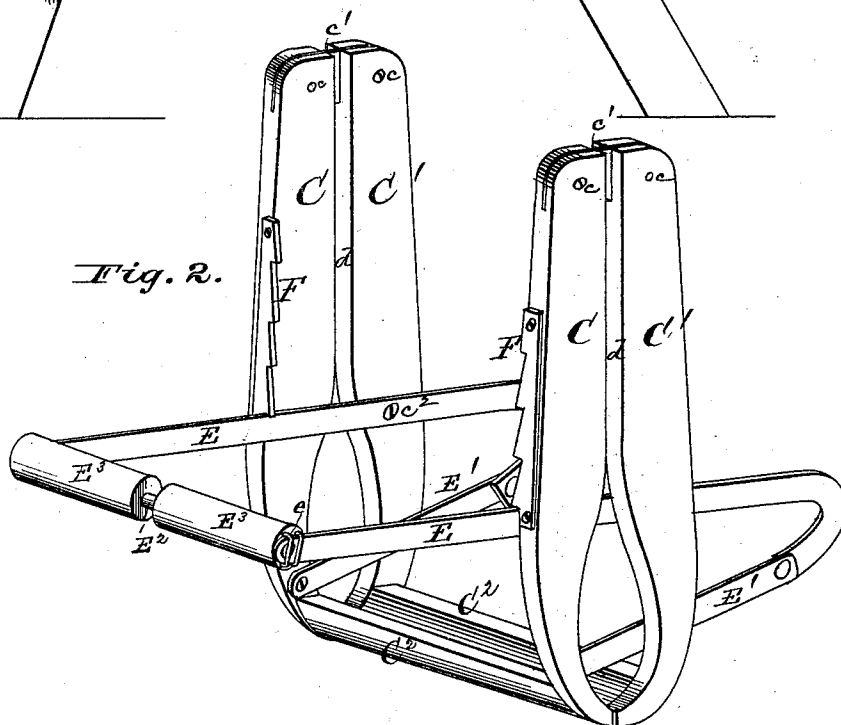
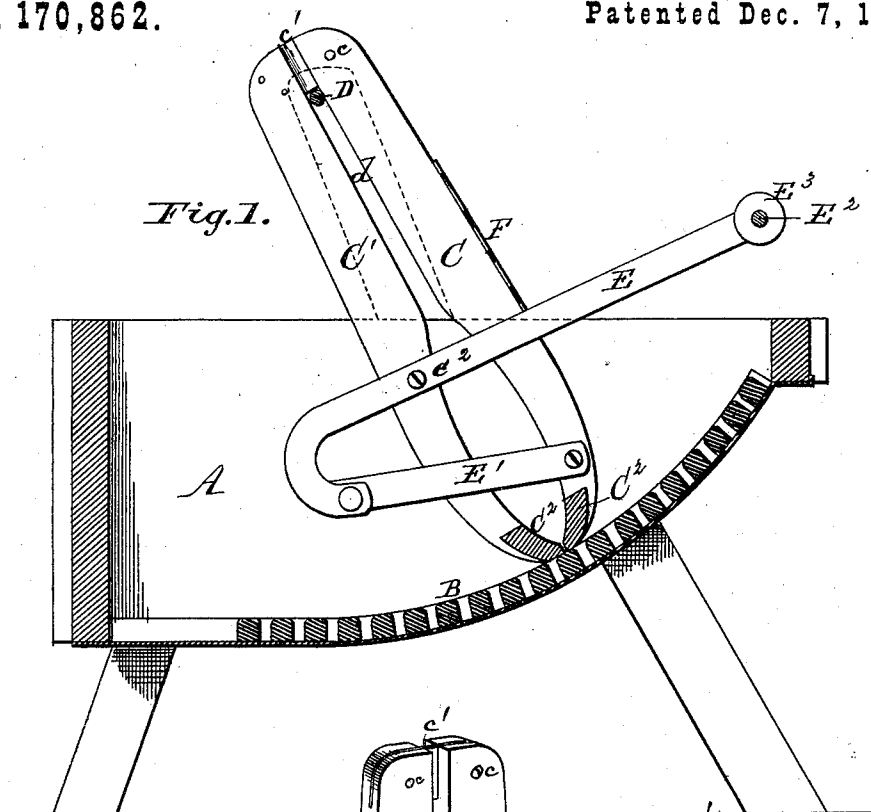


J. F. LAWSON.
WASHING-MACHINE.

No. 170,862.

Patented Dec. 7, 1875.



Attest:
James Maddren
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UNITED STATES PATENT OFFICE.

JAMES F. LAWSON, OF BUTLER, MISSOURI.

IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. **170,862**, dated December 7, 1875; application filed July 28, 1875.

To all whom it may concern:

Be it known that I, JAS. F. LAWSON, of Butler, in the county of Bates and in the State of Missouri, have invented a new and useful Improvement in Washing-Machines; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a vertical longitudinal section of my improved washing-machine. Fig. 2 is a perspective view of the rubbing apparatus detached.

The same letters of reference are used in both figures in the designation of identical parts.

This invention relates to that class of washing-machines which consist, in the main, of a suds-box having a corrugated or fluted bottom, and swinging rubber traversing the fluted bottom.

My improvement relates to a washing-machine in which the rubbing apparatus is constructed in the form of jaws for gripping the clothes, to carry them back and forth during the rubbing action, and thus assimilate the operation to hand-washing on an ordinary wash-board. It consists in certain structural peculiarities in the rubbing apparatus, providing for an easy and quick adjustment of the jaws, and in so hanging said rubbing apparatus that the pressure with which it shall bear on the corrugated bottom depends upon the force with which the operator may bear down on its handle.

The bottom of the suds-box A, consisting of a sheet of zinc curved into the arc of a circle, is covered nearly its whole extent with transverse bars B, forming a corrugated surface. The rubbing apparatus consists of two pairs of jaws, C C¹ C C¹, respectively pivoted upon pins c, on the connecting-plates c' c' at their upper ends, in such a manner that there remains a space, d, between them, for the reception of the elevated bar D, upon which the rubber is suspended, and which is secured at either end to standards fixed to the sides of the suds-box, one of which is shown in broken lines in Fig. 1. The space d between the jaws provides for free up-and-down play of the rubber on the bar D. The corresponding jaws of the

two pairs are, at their lower ends, connected by bars C² C², thus giving a gripping-surface from one pair to the other, entirely across the suds-box. They are operated by a handle-frame, composed of the side bars E E, links E¹ E¹, cross-bar E², and rounds E³ E³. The side bars constitute levers, fulcrumed on the jaws C¹, and having their curved rear arms connected by the links E¹ to the jaws C, so that, by turning the handle-frame on the fulcrum c² of the side bars E, the jaws can be opened and closed. A rack, F, is secured to each jaw C, to engage the side bars of the handle-frame, and thus hold the jaws closed.

To disengage the side bars, their forward arms are bent toward each other, being sufficiently elastic to this end. To permit this they are so connected to the cross-bar E² that they may slide thereon, and a sufficient space is also left between the rounds E³ for this purpose. The side bars are confined to the respective rounds by staples e, as clearly shown in Fig. 2.

The clothes to be washed are placed in the suds-box, and are then washed by the rubbing apparatus on the corrugated bottom, the jaws acting in a manner very similar to the human hand, taking hold of the clothes, and carrying them back and forth at the same time that they are rubbed.

The pressure is easily regulated by the operator by bearing with more or less force on the handle-frame.

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

1. The jaws C C¹, divided by a space, d, in combination with the bar D, from which they are suspended, and on which they slide perpendicularly, substantially as and for the purpose specified.

2. The gripping-jaws, in combination with the side bars E E, links E¹ E¹, and racks F, substantially as and for the purpose specified.

3. The gripping-jaws, in combination with the side bars E E, links E¹ E¹, racks F, cross-bar E², and rounds E³ E³, substantially as and for the purpose specified.

JAS. F. LAWSON.

Witnesses:

A. HENRY,
L. A. BIGGS.