

J. HOOVER.
Washing-Machines.

No. 139,790.

Patented June 10, 1873.

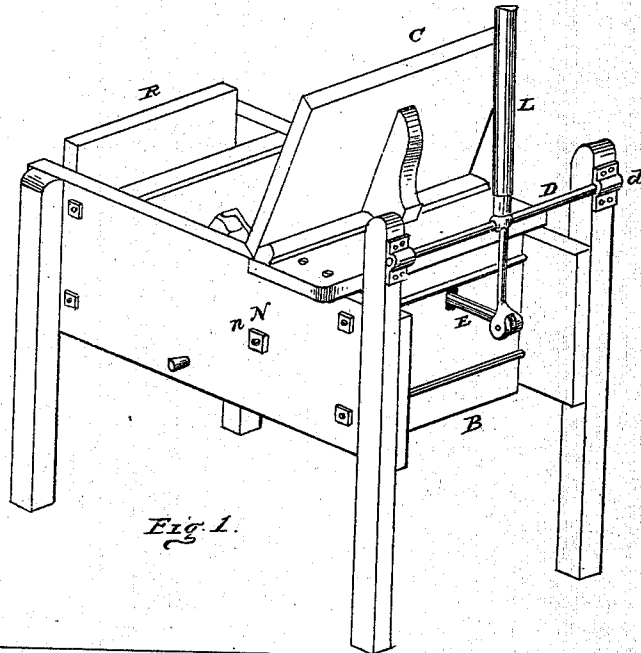
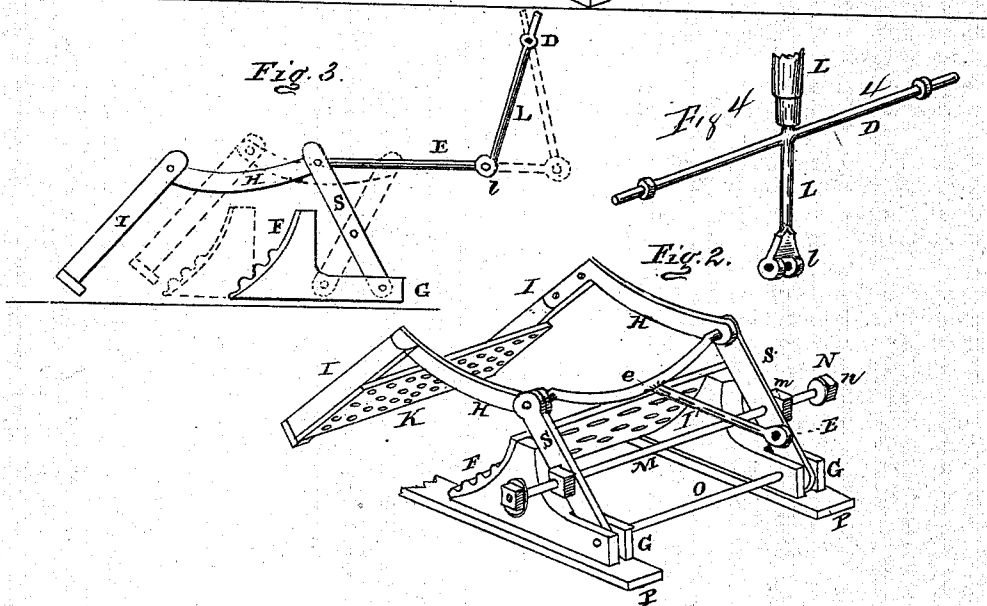


Fig. 1.



Witnesses.

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UNITED STATES PATENT OFFICE.

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IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. **139,790**, dated June 10, 1873; application filed May 6, 1873.

To all whom it may concern:

Be it known that I, JOSEPH HOOVER, of the city of Lancaster, in the State of Pennsylvania, have invented certain Improvements in Washing-Machines, of which the following is a specification:

This invention relates to that class of box washing-machines which are operated by an oscillating hand-lever (this is, however, on a fulcrum cross-bar on the outside of the box) in connection with a horizontal rod entering the box above and terminated by a cross-bar, upon the ends of which a pair of rubbers have their motion, in combination with side levers within the box.

The accompanying drawings illustrate the construction and arrangement of the parts, in which—

Figure 1 is a perspective view of the box and external parts. Fig. 2 is a perspective view of the arrangement of the rubbers. Fig. 3 illustrates their change of position at two points.

The posts at one end are raised above the prolonged sides to form bearings for a fulcrum cross-shaft, D, in boxes *d*, to which the hand-lever L is attached above and prolonged into a slotted head, *l*, by which it is connected with a horizontal rod, E, attached to a cross-rod, *e*, centrally, shown curved outward with the ends straight to form pivots for the upper ends of the side levers S and lever-arms H of the rubber I K. The rubber F has a slotted end, G, below, in which the lower ends of the

side levers S are held by pivots. There is a fixed fulcrum-rod, M, for the side levers S. This rod is shown to pass through the box, secured on the outside by water-tight washers N and screw-nuts *n*, also a little below the center of the side levers. *m* shows stay-blocks to keep them in place on each side, placed between the box and side levers. The rubber attached to the arm H has inclined posts I, joined on their inner face by galvanized iron or copper plates K, perforated and knobbed, as is also the curved face F perforated between raised and rounded cross-ridges, admirably adapted to holding, squeezing, and turning the clothing to be washed by the twofold motion imparted to the several rubbers in their pivot-connections and double-lever action. There are side ledges P on the bottom of the box, on which the outer ends of the rubbers slide, and keep them centrally from the bottom of the box.

What I claim as my invention, and desire to secure by Letters Patent, as resulting or constituting the improvement, is—

The combination, in a washing-machine, of the lever L on its cross-bar D, rod E, pivot-bar *e*, rubbers F G and I K, all arranged and jointly operating in the manner and for the purpose set forth and shown.

JOSEPH HOOVER.

Witnesses:

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