

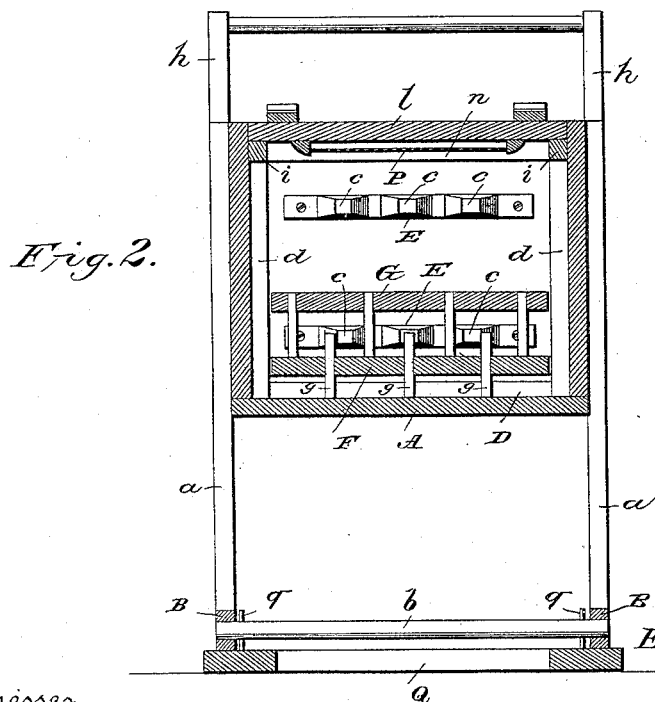
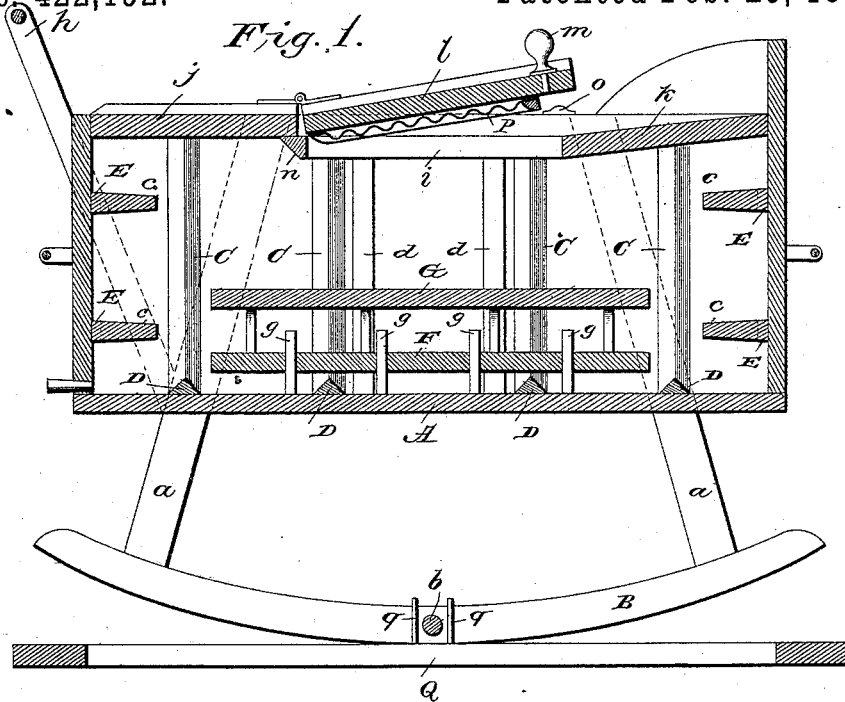
(Model.)

2 Sheets—Sheet 1.

E. DRAPER.
WASHING MACHINE.

No. 422,192.

Patented Feb. 25, 1890.



Witnesses

G. S. Elliott,

E. M. Johnson.

By his Attorneys

Elisha Draper

Inventor

(Model.)

2 Sheets—Sheet 2.

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Fig. 3.

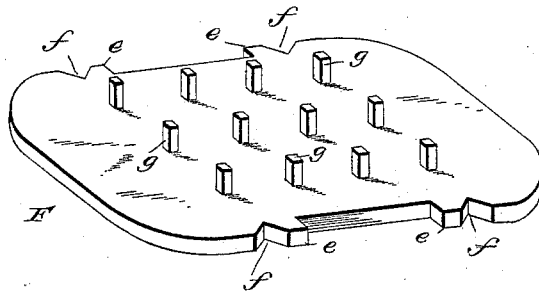
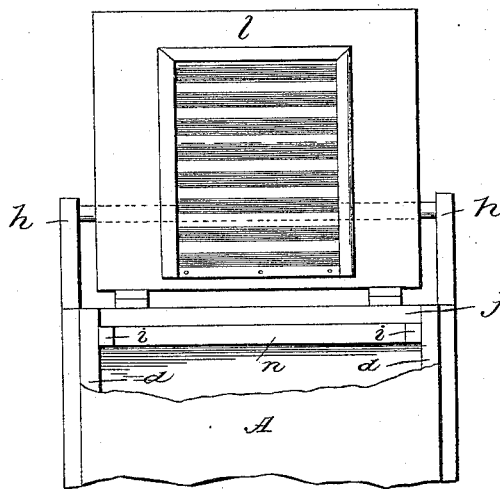


Fig. 4.



Elisha Draper.

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UNITED STATES PATENT OFFICE.

ELISHA DRAPER, OF NEW CASTLE, NEBRASKA.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 422,192, dated February 25, 1890.

Application filed June 27, 1889. Serial No. 315,755. (Model.)

To all whom it may concern:

Be it known that I, ELISHA DRAPER, a citizen of the United States of America, residing at New Castle, in the county of Dixon and State of Nebraska, 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 appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

My invention relates to washing-machines; and it consists in the improved construction hereinafter described and set forth, whereby a simple and effective arrangement is provided that will thoroughly and quickly wash fabrics, vegetables, &c., and in the case of vegetables not only clean them but remove the outer portions or skins, and thereby reduce the labor ordinarily attending their preparation for cooking.

In the accompanying drawings, forming part of this specification, Figure 1 is a vertical longitudinal sectional view of my improved washing-machine. Fig. 2 is a central transverse sectional view of said improved machine. Fig. 3 is a detail perspective view of the lower removable partition employed in said machine, and Fig. 4 is a detail view showing the hinged lid thrown back to expose the wash-board carried by the same.

The body of the machine consists of a horizontal rectangular box A, to the sides of which are secured diverging supports *a*, each pair of which are connected at their lower ends by a rocker B. The said rockers B are braced relative to each other by a transverse rod *b*.

On the inner faces of the sides of the box A are secured a series of vertical bars C, which are connected together at their base by means of transverse horizontal bars D, secured to the bottom of the box. The external portions of the bars C D are formed triangular in cross-section to present inclined deflecting-faces.

Each end of the box A has secured on its inner face bars E, carrying a series of slightly-

tapering projections *c*, extending longitudinally in the box. Two vertical cleats *d d* are secured at each side of the box between the central pair of bars C.

Within the bottom of the box A are adapted to be located two superimposed horizontal partitions, both of which are readily removable. The lower partition F consists of a horizontal plate, the side edges of which are each cut away to form the abrupt shoulders *e* and the triangular notches *f*. From the upper and lower faces of the plate F extend projections *g*. The upper partition G consists also of a plate, but is plain at its edges and has projections extending from its under side only.

In operation the fabric or vegetables are first placed in the bottom of the box, and the partition F is then placed above the same, it being guided to its position by the shoulders *e*, bearing at each side of the cleats *d d*, while the notches *f* receive the adjacent bars C. More fabrics or vegetables are then placed upon the partition F, and the partition G is located above the same to move loosely in the box. The body is then vibrated upon its rockers by means of the end handles *h h*, thus causing the fabric or vegetables to be thrown from one end of the box to the other. As the material moves between the projections of the partitions the loose dirt and other foreign matter are dislodged therefrom. The contact with the projections *c* at each end serves to dislodge the more tenacious elements adhering to the material. When vegetables are washed, it will be found that the improved construction not only effects the removal of the dirt, but causes the skin or peeling to be rubbed therefrom. Of course, as will be well understood, many other kinds of articles may be washed in the improved machine. A horizontal bar *i* is secured at each side of the box above the upper ends of the cleats *d d*, and serves to prevent the lower partition from rising on its cleats and guides to a degree that would force the upper plate against the top. This latter consists of three sections *j k l*, the section *j* being horizontal and rigid, the section *k* being also rigid, but slightly inclined toward the center, and the section *l* being hinged to the section *j* and

adapted to close upon the edge of the section *k*, and thus form a door, which is provided with a knob *m* to facilitate its movement. The side walls of the box are vertically extended adjacent to the section *k*, so as to provide a projecting portion for the attachment of a wringer. By having the section *k* inclined, as described, the water is deflected toward the center of the box as the latter is rocked. A transverse bar *n*, having a face inclined toward the outer end of the section *j*, is secured on the under side of said section adjacent to its inner edge. Its inclined face serves to throw the water back into the box and prevent its splashing through between the adjacent edges of the sections *j* and *l*. Turn-buttons *o* on the upper edge of the sides serve to lock the section *l* in a closed position.

The inclined faces of the bars *CD* not only assist in the cleansing action, but serve to break the force of the water as it is thrown back and forth in the box. The handle *H* enables the rocking of the box. A corrugated metal section *P* is secured on the under side of the hinged lid, that the latter can be thrown back to permit the use of said section as a wash-board. The rockers rest on a rectangular base-frame *Q*, the sides of which are provided with pins *g*, between which the cross-brace of the rockers bears, so that said rock-

ers can be vibrated without occasioning any slipping or traveling of the machine.

I claim--

1. The combination, with the box mounted upon rockers and provided interiorly with guides, of a horizontal removable partition provided on its under side with projections, as set forth.

2. The combination, with the box mounted upon rockers, of the removable superimposed horizontal partitions, the lower partition having upper and lower projections and the upper partition with lower projections only, substantially as set forth.

3. The combination, in a washing-machine, of a box mounted upon rockers, vertical guides located on the inner sides thereof, horizontal removable partitions provided with projections, as described, and horizontal tapering projections located on each end of the box and designed to act on the goods or material at each end as it leaves the action of the partitions, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

ELISHA DRAPER.

Witnesses:

JAMES E. MOORE,
LEWIS A. JOHNSON.