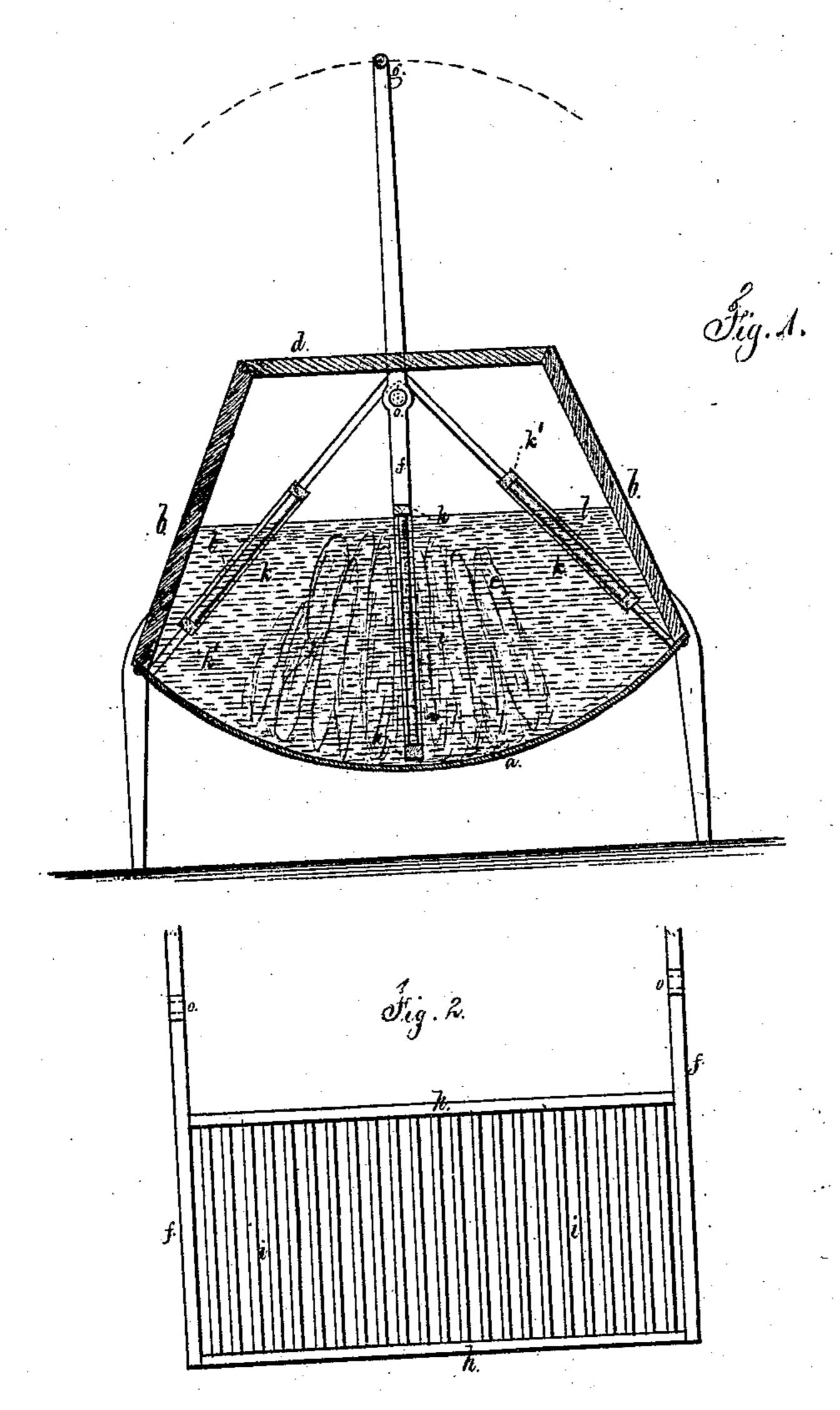
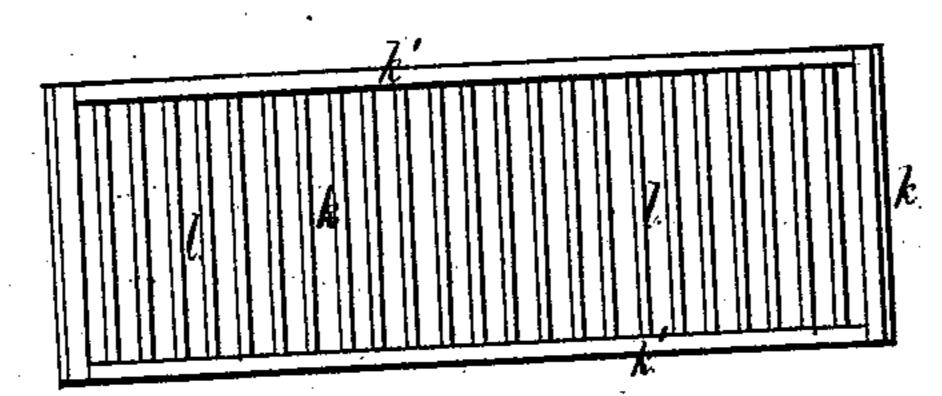
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Patented Oct. 5.1869.





John Crampton

for L. N. Serrell acts

## Anited States Patent Office.

JOHN CRAMPTON AND WILLIAM H. PANGBORN, OF PLAINFFELD, NEW JERSEY.

Letters Patent No. 95,567, dated October 5, 1869.

## IMPROVED WASHING-MACHINE.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that we, John Crampton and William H. Pangborn, of Plainfield, in the county of Union, and State of New Jersey, have invented, made, and applied to use, a new and useful Improvement in Washing-Machines; and we do hereby declare the following to be a correct and full description thereof, reference being had to the annexed drawing, making part of this specification, wherein—

Figure 1 is a vertical transverse section of the said

machine;

Figure 2 is a side view of the dasher detached; and Figure 3 shows the side of one of the squeezing-slats and frame.

Similar marks of reference denote the same parts.

The washing-machines that have heretofore been made, have had some one or more objectionable points: either the fabric is rubbed and injured, or else the water is not passed through the clothes sufficiently to cleanse all parts, or the clothes had to be turned over by hand, or rubbed in those places that were not clean, or else the mechanism was complicated and difficult to manage or to keep clean.

This invention is devised with a view to squeeze the water out of the clothes with great rapidity and freedom, and allow the clothes to change position, by gravity, with rapidity, and absorb the water by opening out loosely in the same, thus insuring a most thorough rinsing of the clothes through the water and forcing of water through the fabric. At the same time, the machine itself is not obstructed, by giving motion to the water by the dasher as it is moved by hand.

Our invention relates to an open dasher of slats, set to be vibrated in the tub or receptacle, contracted at the top, in combination with a frame of vertical adjustable squeezing-slats, against which the clothes are pressed to squeeze out the water, and from which slats the clothes fall and expand, and spread loosely in the water, again absorbing said water and the suds, so that the washing-operation is performed by the suds passed rapidly through the fabrics, by the alternate squeezing and expansion.

In the drawing—

a is the curved bottom,

b, the sides, and

c, the ends, forming the tub or receptacle.

d is a movable lid, and

ff are the side-pieces of the dasher, united at their upper ends by a handle, g.

 $\tilde{h}$  h are cross-pieces, between the side-pices f, and

i i are vertical slats, between the bars h h.

The dasher formed of these parts is set to swing on centres o o. These may be removable, so that the dasher may be lifted out in cleaning the receptacle or tub.

k k are squeezing-slats, formed of rails k', united by vertical slats l l, the whole forming a frame, as seen in

fig. 3.

These squeezing-slats are introduced in the tub at an angle to each other, and nearly on the radial line of the arc of the circle in which the dasher swings, so as to coincide with said dasher in the extreme portions of its movement.

By this construction, the open slats of the dasher and squeezing-frames allow the water to escape with freedom as the clothes are squeezed between them, and the slats afford but little resistance to the movement of the dasher in the water; hence the washing is performed with but little labor and with great rapidity.

What we claim, is-

The tub, contracted at the top, and receiving the removable frame of vertical adjustable squeezing-slats set in grooves, as specified, in combination with the swinging dasher of vertical slats, constructed and operating as specified.

In witness whereof, we have hereunto set our signatures, this 4th day of September, 1869.

JOHN CRAMPTON. WM. H. PANGBORN.

Witnesses:

ISAAC W. PANGBORN, CHAS. AUSTIN.