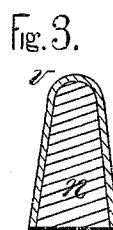
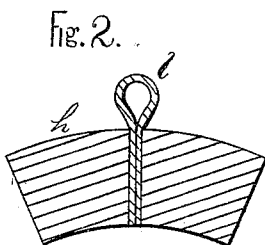
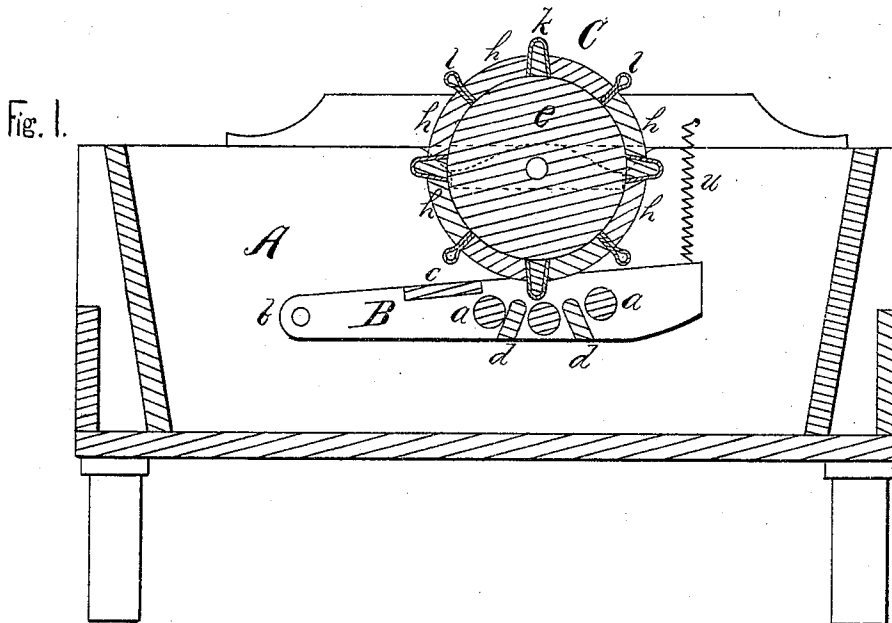


P. B. WATSON.
Washing-Machines.

No. 138,969.

Patented May 13, 1873.



WITNESSES.

Chas. F. Steele
George E. Vopham.

INVENTOR.

Peter B. Watson,
Chipman & Foster & Co.,
Attorneys.

UNITED STATES PATENT OFFICE.

PETER B. WATSON, OF BELVIDERE, NEW JERSEY, ASSIGNOR OF TWO-THIRDS HIS RIGHT TO THOMAS WEST, OF SAME PLACE.

IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. **138,969**, dated May 13, 1873; application filed March 22, 1873.

To all whom it may concern:

Be it known that I, PETER B. WATSON, of Belvidere, in the county of Warren and State of New Jersey, have invented a new and valuable Improvement in Washing-Machines; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a representation of a sectional view of my washing-machine. Figs. 2, 3, and 4 are detail views of the same.

This invention has relation to washing-machines, and it consists in the construction and novel arrangement of the alternate longitudinal puffs of soft rubber and ribs of zinc on the surface of the main roller or cylinder.

The object of this invention is chiefly to provide a roller which will rub the clothes softly as well as press them, the two substances, zinc and rubber, being employed for this purpose, as they possess the proper degrees of hardness and softness, respectively, and are not liable to undue oxidization.

In the accompanying drawing, the letter A indicates the box or tub of the washing-machine. B represents the hinged frame to which the lower rollers *a a* are journaled. This frame is hinged or pivoted at one end, as shown at *b* in the drawing. The clothes are designed to be introduced between the rollers *a a* and the main roller on the side nearest the pivoted end of the frame, and this end is, therefore, provided with a narrow platform, *c*, which serves to lead the clothes into the space between the main roller and the small rollers of the frame. Between each two of the small rollers *a a* is arranged radially, or nearly so with reference to the axis of the main cylinder, a bar or board, *d*, having its upper edge rounded. These round-edge boards are designed to rub the goods as they are fed between the rollers. These boards may be faced with zinc over their upper or rounded edges, as described below with reference to

the pressing ribs of the main roller. The hinged frame is rendered adjustable in the following manner: Springs, *u u*, are connected with the free end in such a manner as to draw it up against the main roller. If the ribs *d* press the clothes too hard, their pressure can be decreased by adjusting their bearings down in the slots *z'*. C indicates the main roller. This roller may be constructed as follows: A core-cylinder, *e*, is provided with a suitable shaft, the ends of which are journaled in suitable seats arranged at the upper edge of the tub, and secured by removable caps. This cylinder or core is covered by fastening thereto longitudinal strips, *h*, of sufficient width to extend from one rib, *k*, to the adjacent puff *l* of rubber. The edges of these strips are beveled inward, and are pressed together in the manufacture so that they will clamp between them the inner edges of the alternate ribs and puffs. The pressing ribs *k* are preferably constructed of wooden strips, *n*, beveled outward on each side in dovetail form, so that they will be keyed down securely in their seats by the apposition of the beveled edges of the strips *h*. The outer edges of the core-strips *n* are rounded, and they are covered with sheet-zinc *v* before being secured in place. Alternately with the ribs *k* are arranged the puffs *l*. These consist of strips of rubber doubled along the middle line. The free edges, being inserted between the edges of the strips *h*, are held thereby, the doubled middle portion extending outward in the form of a cylindrical puff.

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

The washing-roller having alternate zinc-covered ribs *k* and soft rubber puffs *l*, substantially as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

PETER B. WATSON.

Witnesses:

JEHEIL T. KERN,
JOEL MANN.