

J. W. RICKER.
Washing-Machines.

No. 149,606.

Patented April 14, 1874.

Fig. 1.

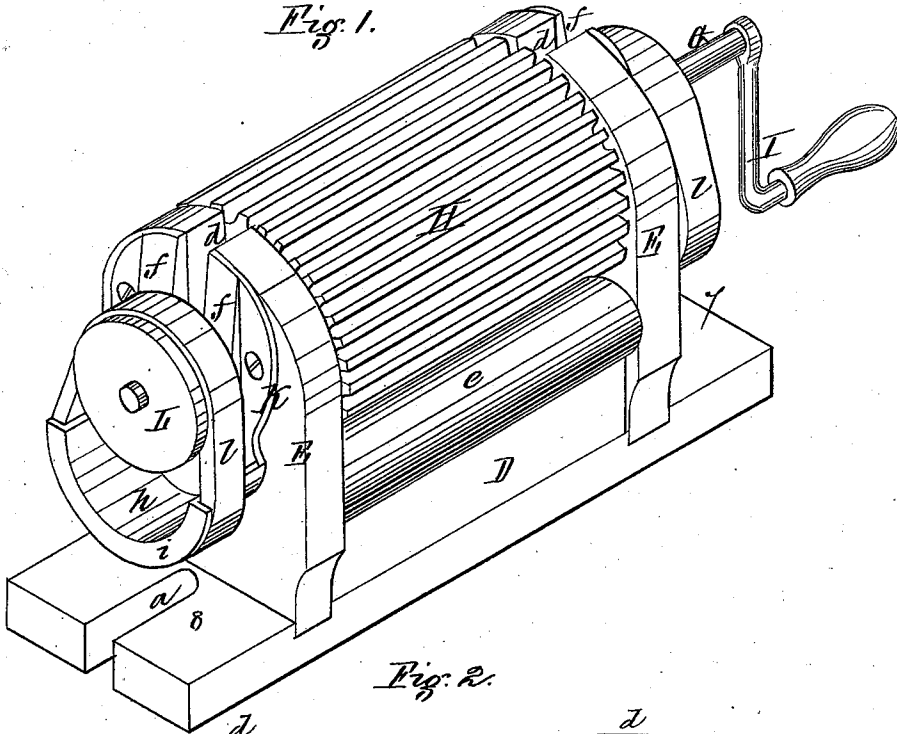
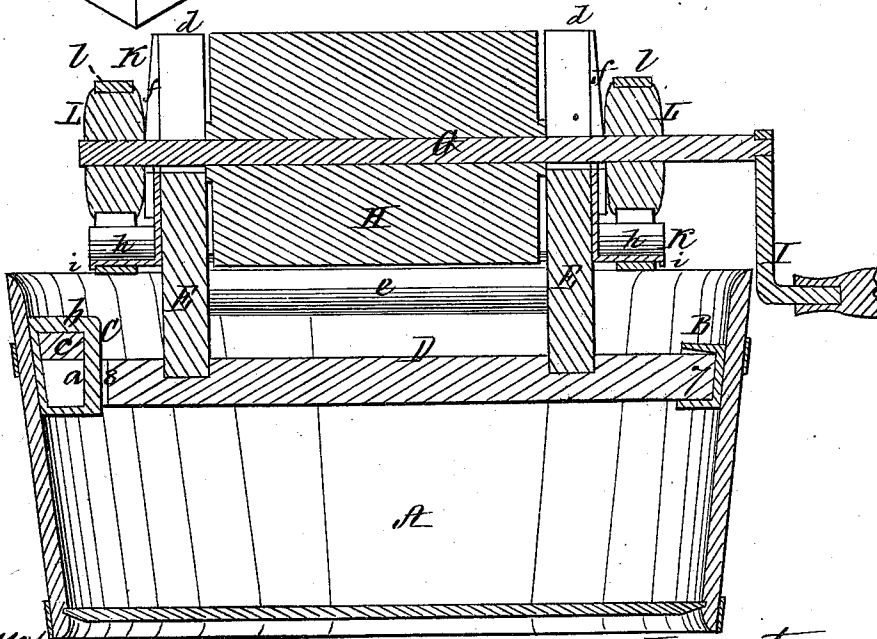


Fig. 2.



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Fig. 3.

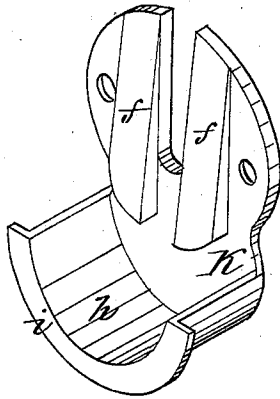


Fig. 4.

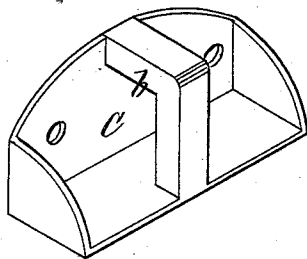


Fig. 5.

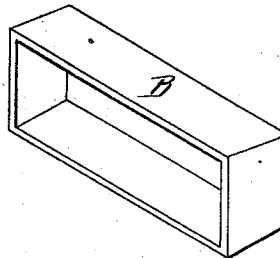
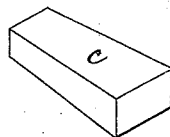


Fig. 6.



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UNITED STATES PATENT OFFICE.

JOHN W. RICKER, OF CHELSEA, MASSACHUSETTS.

IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. **149,606**, dated April 14, 1874; application filed February 27, 1874.

To all whom it may concern:

Be it known that I, JOHN W. RICKER, of Chelsea, in the county of Suffolk and State of Massachusetts, have invented certain Improvements in Washing-Machines, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings making part of this specification, in which—

Figure 1 is a perspective view of a washing-machine having my improvements applied thereto. Fig. 2 is a vertical longitudinal section through the center of the same, illustrating my improved method of securing it in place within a tub. Figs. 3, 4, 5, and 6, details in perspective.

My present invention relates to an improvement in the construction of washing-machines, whereby the friction of the yielding bearing against the outside of the standard, when the main roller is raised at one end by the passage of clothes of considerable thickness, is avoided; and my invention consists in a standard provided with an inclined face, or with an inclined face-plate against which the yielding bearing is free to slide when raised with the main roller by the passage of clothes thereunder. My invention also consists in a novel device for firmly securing the machine within the wash-tub.

To enable others skilled in the art to understand and use my invention, I will proceed to describe the manner in which I have carried it out.

In the said drawings, A represents an ordinary circular wash-tub, inside of which, at points diametrically opposite to each other, are secured metallic cleats or fastening-plates B C, for the reception of the ends of the base D of the washing-machine. The fastening-plate B is a simple socket into which one end, 7, of the base D is entered, the plate C serving as a rest for the opposite end 8, which is provided with a slot, *a*, to allow of its passage over a loop, *b*, through which, above the base D, is passed a wedge or key, *c*, by which means the machine is held securely in place within the wash-tub, and all lateral and vertical play entirely avoided. The wedge *c* tapers on its upper surface and on one side, and the interior of the loop *b* is inclined to corre-

spond therewith, by which construction the removal of the wedge is facilitated. From the upper side of the base D rise two vertical standards, E E, having slots *d d*, in which revolves the shaft G of the main roller H, the exterior surface of which is fluted or corrugated, and is intended to be revolved by hand, applied to a crank, I. Four plain cylindrical rolls, *e*, are situated below the main roller H, these rolls *e* having their bearings in the vertical standards E E. To the outside of each standard is secured a slotted plate, K, of the form seen, the slot in the plate and that in the standard to which it is secured being placed in line with each other. On each side of the slot in each plate K is formed a projection, *f*, the outer face of which is inclined upward and inward, as shown. The bottom of each plate terminates in a curved or arc-shaped projection, *h*, provided with a flange, *i*. Under this arc-shaped projection, and over a circular grooved block, L, through which the end of the shaft G projects, extends an elastic band, *l*, by which construction a yielding bearing is formed for each end of the shaft to revolve in. The inner face of each block L is rounded off in such manner that it comes in contact with the inclined faces of the projections *f* of its plate K only near the shaft G, and when one of the bearings is raised, by the passage of clothes of considerable thickness under the main roller H, the bearing will not bind against the faces of the projections *f*, owing to their being inclined or beveled, but will freely slide upward thereon, thus allowing the machine to be easily operated, whereas if the surface against which the yielding bearing rests were perpendicular the friction of the parts, when wet, would increase as the end of the main roller was raised, so as to render it difficult to work the machine. Instead of a plate provided with inclined faces, as described, the standard may be of sufficient thickness to allow its face to be beveled or inclined upward and inward without departing from the spirit of my invention; but I prefer to use the plate, as it has the additional advantage of effectually preventing the splitting of the standard. The arc-shaped projection *h* affords an extended bearing-surface for the elastic band *l*, and renders it much less liable

to break than if it were held down by a pin or hook.

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

1. The slotted standard E, provided with an inclined face, in combination with the bearing L, shaft G, and roller H, substantially as described, for the purpose set forth.

2. The base D of a washing-machine provided with a slot, *a*, in combination with the

fastening-plate C, with its loop *b* and wedge *c*, and the socket B, all constructed and operating substantially as and for the purpose described.

Witness my hand this 18th day of February A. D. 1874.

JOHN W. RICKER.

In presence of—

P. E. TESCHEMACHER,

N. W. STEARNS.