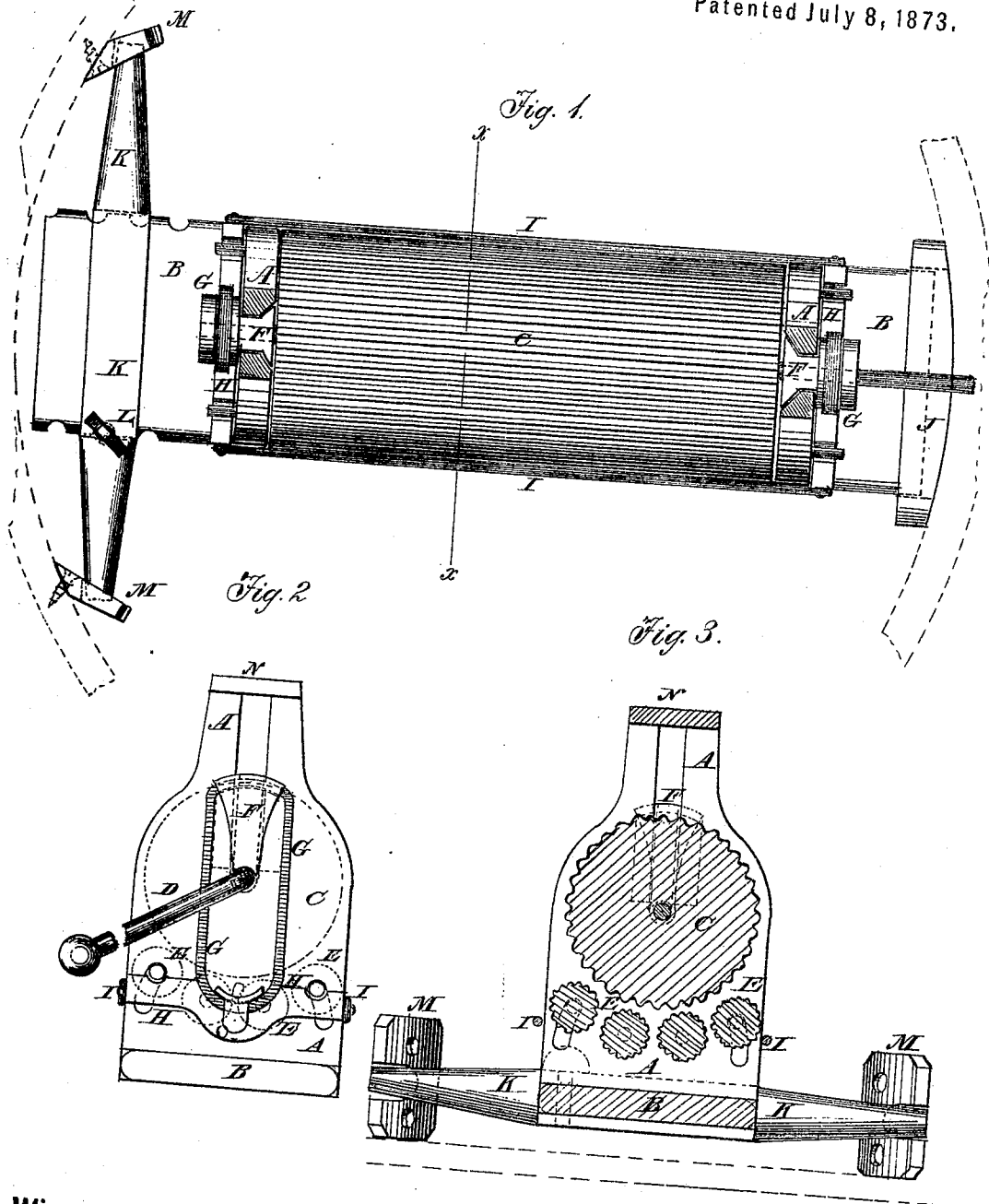


M. L. HAWKS.
Washing-Machines.

No. 140,625.

Patented July 8, 1873.



Witnesses:
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UNITED STATES PATENT OFFICE.

MOSES L. HAWKS, OF KINDERHOOK, MICHIGAN.

IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. **140,625**, dated July 8, 1873; application filed June 14, 1873.

To all whom it may concern:

Be it known that I, MOSES L. HAWKS, of Kinderhook, in the county of Branch and State of Michigan, have invented a new and useful Improvement in Washing-Machines, of which the following is a specification:

Figure 1 is a top view of my improved machine. Fig. 2 is an end view of the same. Fig. 3 is a vertical cross-section of the same taken through the line *x x*, Fig. 1.

Similar letters of reference indicate corresponding parts.

My invention has for its object to furnish an improved washing-machine of that class in which the washing is done by passing the clothes back and forth between rollers, and which shall wash the clothes quickly and thoroughly and without injuring them, and without becoming clogged. The invention consists in the combination of the standards, the cross-bar, the bed-piece, the large roller, the two stationary inner rollers, the two movable outer rollers, the half-bearings, the rubber-band springs, the cross-bars and their connecting-wires with each other; and in the combination of the large cleat, the slotted cross-bar, the pin, and the small cleats with the ends of the bed-piece of the machine, as hereinafter fully described.

A represents the standards of the machine, which are connected at their lower and upper ends and held in their proper relative positions by a bed-piece, B, and cross-bar N. C is the large upper roller, which is grooved, fluted, or corrugated longitudinally and the journals of which revolve in slots formed in the upper parts of the standards A. To one of the journals of the roller C is attached the crank D, by which the machine is operated. E are four small rollers placed beneath the large roller C. The journals of the two inner rollers E revolve in bearings in the standards A. The journals of the two outer rollers E revolve in short slots in the standards A, so that they may yield as the clothes pass in and out, and thus prevent clogging. F are half bearings, blocks, or arms which are placed in the slots in the upper parts of the standards A and the lower ends of which rest upon the journals of the roller C. The outer part of the blocks F project, and the upper ends of said projecting parts are rounded off to receive

the rubber bands G, which also pass around clasps O attached to the middle parts of the cross-bars H, in notches in the upper sides of which the journals of the outer small rollers E rest. By this construction, as the clothes pass in, the upper roller C and the outer small rollers E yield so as to accommodate themselves to the thickness of the clothes, and as the clothes pass out the outer small rollers E upon that side yield, so that the clothes can readily pass out, thus preventing clogging. I are two wires or rods the ends of which are pivoted to the ends of the cross-bars H, to keep them in place. J is a cleat, designed to be attached to the side of the tub, and which is notched or slotted to receive one end of the bed-piece B. The other end of the bed-piece B is inserted in a slot in the cross-bar K, where it is secured in place by a pin, L, which passes down through a hole in the said cross-bar K and through one or another of the notches formed in the side edges of the end of the bed-piece B. The ends of the cross-bar K rest in notches in the small cleats M, which are designed to be attached to the side of the tub.

In inserting the machine in the tub the end of the bed-piece B is inserted in the cleat J. The cross-bar K is then slipped out upon the end of the bed-piece B until its ends enter the notches of the cleats M. The pin L is then inserted and the machine is secured in place.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination of the standards A, the cross-bar N, bed-piece B, the large roller C, the two stationary inner rollers E, the two movable outer rollers E, the half-bearings F, the rubber-band springs G, the cross-bars H, and the wires or rods I with each other, substantially as herein shown and described.

2. The combination of the cleat J, the slotted cross-bar K, the pin L, and the cleats M with the ends of the bed-piece B of the machine, substantially as herein shown and described.

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