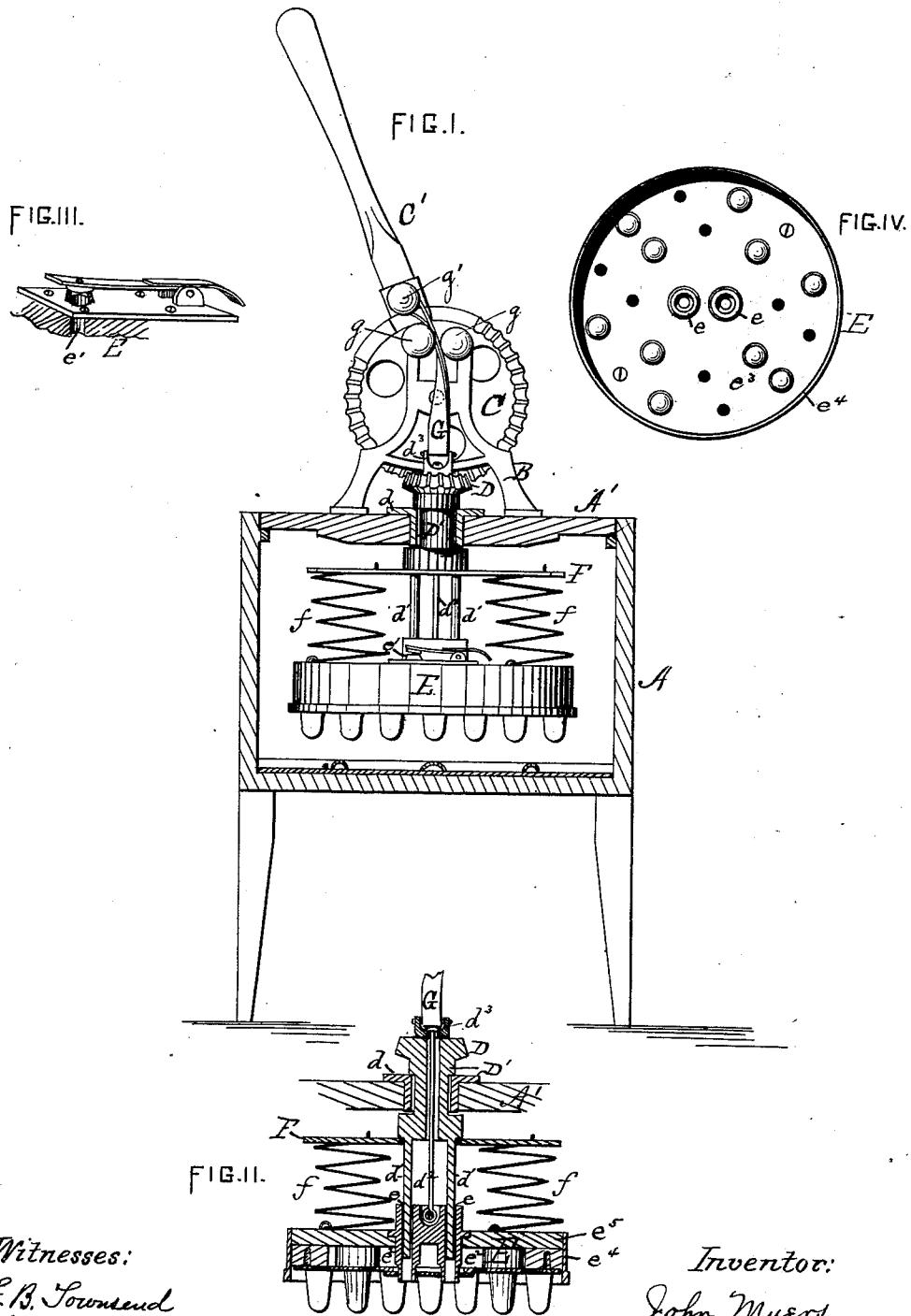


J. MYERS.
Washing-Machine.

No. 218,050.

Patented July 29, 1879.



Witnesses:
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A. W. Munday

Inventor:
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UNITED STATES PATENT OFFICE.

JOHN MYERS, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. **218,050**, dated July 29, 1879; application filed August 20, 1878.

To all whom it may concern:

Be it known that I, JOHN MYERS, of Chicago, in the county of Cook and State of Illinois, have invented certain Improvements in Washing-Machines, of which the following is a specification.

In the drawings, Figure 1 is a front elevation of the machine, with the side of the box broken away to show the mechanism within the same. Fig. 2 is a central vertical section through a portion of the mechanism. Fig. 3 is a view of a portion of the follower and of the valve located thereon, and Fig. 4 is a bottom view of the follower.

Referring to said drawings, A represents the box wherein the washing is done, which may be mounted upon suitable standards or otherwise supported. A' is the cover, which may be hinged or otherwise secured to the box. Resting upon the cover and secured thereon is a single or double standard, B, supporting the pivot of a vertical bevel-gear wheel, C, to which an oscillating motion is given by a handle, C', secured to the said wheel.

D is a small horizontal bevel-gear wheel, meshing into the wheel C and receiving power therefrom, and mounted upon a hollow shaft, D', having a bearing, d, in the box-cover.

From the lower end of the mandrel or shaft D' depend two rods, d¹, which enter vertical openings e in the follower E. These rods insure the turning of the follower with the rotation or oscillation imparted to the wheel D. The follower is supported by another rod, d², passing from its center up through the mandrel D' and wheel D, and upon the upper surface of the latter is provided with a head-piece, d³, which rests upon said upper surface, and sustains the weight and downward pressure of the follower.

F is a piece of flat metal, with openings for the rods d¹ and d² immediately under the mandrel D', between the ends of which and the follower are two compressed coiled springs, f, f, tending to keep the follower down close to its work at all times.

From the head-piece d³ extends a strap, G, which passes between two stationary bosses, g, projecting from the standard B, and from thence over a boss, g', projecting from the handle C' or the wheel C. This strap at each os-

cillation of the handle is shortened by one of the stationary bosses, the resulting effect of which is to raise the rod d² and the follower.

When the handle is reversed and moved back to the meridian line the strap slackens, and the follower, either by its own weight or by that and the force of the springs f' combined, drops to its normal position again. This strap may be slipped off the boss g' if it is desired to use the machine with the oscillating movement only.

The bosses g and g' are preferably provided with rollers, to avoid friction with the strap.

The follower E is of peculiar construction. Its acting-surface is dished or hollowed, and a valved opening, e', made through it, whereby the air imprisoned within the hollow when the follower is lowered into the water is released; but any reflux of the air is prevented by the automatic closing of the valve. This valve may be like the drawings, Fig. 3, and self-closing by gravity.

This construction enables me to obtain a suction upon the clothes which insures their being lifted slightly or loosened by the upward movements of the follower, and tends to prevent their packing so closely as to injure or detract from the perfect working of the machine.

Of course the mouths of the guide-openings e are upon as low a level as the outer rim of the follower, or they must be made air-tight to insure the result just described.

I prefer to make the follower with a chamber, e², through which the air must pass in its way to the valve. This chamber may be co-extensive with the follower, and high or shallow, as desired. A bottom of tin, e³, may be used to form this chamber, in conjunction with a rim, e⁴, and wood top e⁵.

I claim—

1. The described means for raising the follower, consisting of the handle C', boss g' on the handle, stationary bosses g g, strap G, and rod d², having the head d³, for the attachment of the strap, all combined and operating as described.

2. The washing-machine consisting of the following instrumentalities, to wit: The box A, having a cover, the standard B, handle C', gear-wheels C and D, mandrel D', having a

bearing in the box-cover, rods *d*¹, follower E, rod *d*², strap G, bosses *g g'*, flat metal piece F, and springs *f f'*, all combined and operating substantially as set forth.

3. The follower having the vertical and oscillating movement, in combination with the oscillating mandrel D', and the rods *d d*, depending from said mandrel at either side of the center and passing through openings in the follower, whereby said rods are made to serve as guides in the vertical movement, and

as motors in the oscillating of the follower, substantially as specified.

4. The follower, in combination with the vibrating handle, the strap connected to the handle and the follower, and the stationary bosses at either side to shorten the strap, substantially as specified.

JOHN MYERS.

Witnesses:

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