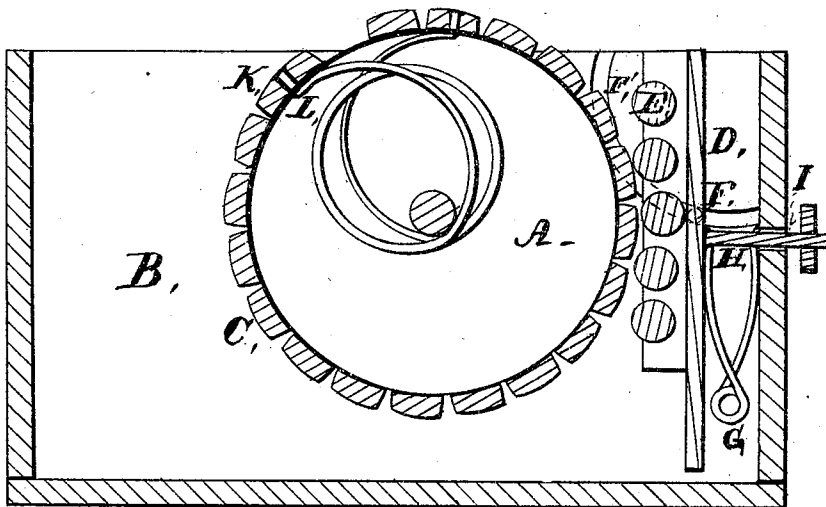


E. COOPER.  
WASHING-MACHINE.

No. 179,099.

Patented June 27, 1876.



Witness:  
F. M. Tate  
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# UNITED STATES PATENT OFFICE.

ELIHU COOPER, OF MONTROSE, IOWA.

## IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. **179,099**, dated June 27, 1876; application filed April 24, 1876.

*To all whom it may concern:*

Be it known that I, ELIHU COOPER, of Montrose, Lee county, Iowa, have made a new and useful Improvement in Washing-Machines. This is made substantially as set forth hereinafter, referring to the accompanying drawings, in which—

Figure 1 is a vertical section.

This invention consists in the construction and arrangement of a washing-machine.

The wheel A is hung by bearings on the ends of its shaft in box B, so as to be turned freely by a crank at one side. It has rib-bars C on its circumference lengthwise. These are set a little apart, and rounded on their outer faces. This wheel has a follower-frame, D, at its side. This has five rollers, E, arranged to turn freely, set on its face: three are arranged to rest against the wheel, and one on each side, a little off from the wheel. The frame D has projections F on its ends. These rest in channels F' in the sides of the box B, which permits it to move to and from the wheel A for adjustment, and guides its motions. The frame D has a spring, G, against its back, to hold it against the wheel, and a guide-arm, H, passing through bearings I, which gives it a little latitude for adjustment, but keeps it in proper position. The rubbing-bar K on wheel A is not fixed, but is held by spring-holders L, so that it may move sidewise, the springs holding it firmly against the next bar at its side.

The clothing is placed with one edge between this movable bar and the fixed bar, so

as to be firmly caught and held by them. The wheel is then turned several times, and carries the clothes against the rollers in the frame D, wrapping them around itself, and dipping them at each turn into the suds in the box. It is then turned in the other direction, which unrolls the clothes and rerolls them upon itself with the other side out. The alternate rolling and dipping of the clothing serves to cleanse it. This is aided by the unevenness of the surface of the wheel formed of rounded slats, which causes a sort of hammering action of the rollers.

I claim—

1. The combination of the revolving cylinder A, the follower-board D, with rollers E and spring G, with the movable rubbing-slat K, with clamping-springs L, arranged to catch and hold the clothes, to allow the cylinder to be revolved and reversed to wash them, substantially as set forth.

2. The combination of the guide-arm H with the follower D and wheel A, substantially as set forth.

3. The follower D, having the combination of the arm H, the springs, the projections in its ends, and the channels in the box, arranged to give it a certain action and latitude of movement, guided substantially as set forth.

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Witnesses:

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