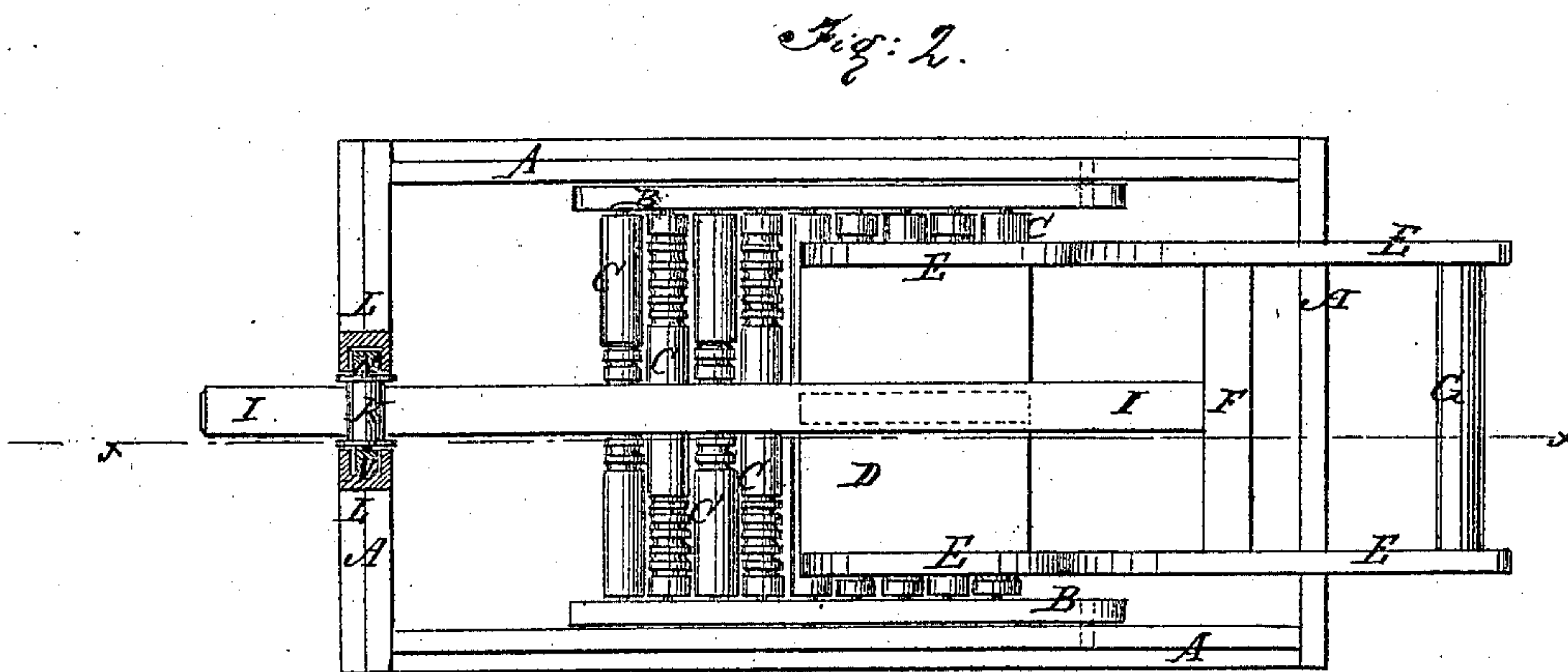
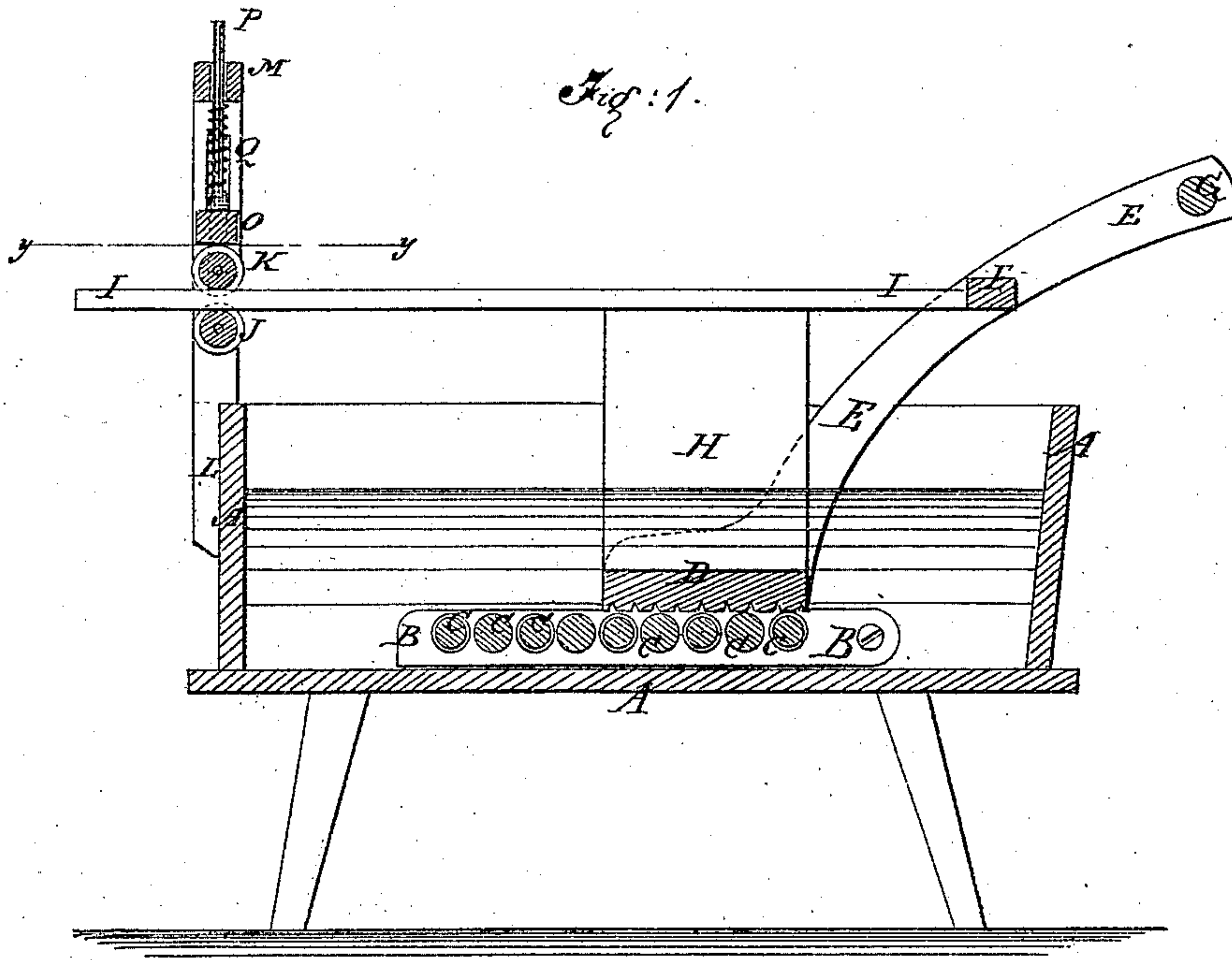


J. H. DOYLE.

Improvement in Washing-Machines.

No. 131,606.

Patented Sep. 24, 1872.



Witnesses:

*Chas. Nida*  
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PER

# UNITED STATES PATENT OFFICE.

JOHN H. DOYLE, OF WILLIAMSBURG, OHIO.

## IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. **131,606**, dated September 24, 1872.

*To all whom it may concern:*

Be it known that I, JOHN H. DOYLE, of Williamsburg, in the county of Clermont and State of Ohio, have invented a new and useful Improvement in Washing-Machine, of which the following is a specification:

Figure 1 is a vertical longitudinal section of my improved machine taken through the line *x x*, Fig. 2. Fig. 2 is a top view of the same partly in section through the line *y y*, Fig. 1.

Similar letters of reference indicate corresponding parts.

My invention has for its object to furnish an improved washing-machine, simple in construction, convenient in use, and effective in operation; and it consists in the construction and combination of the various parts of the machine, as hereinafter more fully described.

A represents the box or tub with which the washing apparatus is connected and which may be a rectangular box supported upon legs, as represented in the drawing, or an ordinary round wash-tub, as may be desired. B are two parallel bars pivoted at one end to the sides of the tub A to keep them from sliding about. C are rollers, any desired number of which may be used, and the ends of which, or journals formed upon said ends, revolve in holes in the inner sides of the bars B. The rollers C are partly plane and partly grooved or corrugated transversely, and are so arranged that the corrugated part or parts of each roller may be opposite the plane parts or part of its adjacent rollers, as shown in Fig. 2. The bars B and rollers C form the bed upon which the clothes are rubbed. D is the rubbing-board or block, which is made about half the length of the bed B C, and a little narrower than the said bed. The lower surface of the board D is grooved or corrugated, as shown in Fig. 1. To the board D, near its side edges, are attached the lower ends of the handles E, which project upward and incline or curve rearward,

and are connected in their middle parts by a bar, F, and at their upper ends by a round, G, which serves as a handle in operating the machine. To the middle part of the rubber D is attached the lower end of an upright, H, to the upper end of which is attached a bar, I, the rear end of which is attached to the cross-bar F. The forward end of the bar I passes between the rollers J K. The journals of the lower rollers J revolve in holes in the inner sides of two bars, L, the lower ends of which are attached to the side of the box or tub A, and the upper ends of which are connected by a cross-bar, M. The inner sides of the upper part of the bars L are grooved longitudinally to receive the blocks N that slide up and down in the said grooves, and to which the upper roller K is pivoted. The upper parts of the slides N are connected by a cross-bar, O, to the center of which is attached a guide-rod, P, which passes up through a guide-hole in the center of the cross-bar M, and upon which is placed a coiled spring, Q, the upper end of which rests against the said cross-bar M, and the lower end of which rests upon the cross-bar O. The rollers J K thus serve as a fulcrum to the bar I, to enable the operator to apply any desired pressure to the clothes while rubbing them, or to conveniently raise the rubber from the clothes when desired.

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

The roller-bed B C, rubber D, handles E, upright H, bar I, rollers J K, spring Q, and bars L, in combination with each other, to adapt them to be connected with a box or tub, substantially as herein shown and described, and for the purpose set forth.

JOHN H. DOYLE.

Witnesses:

W. A. KAIN,  
ABRAHAM CLARK.