

W. W. GRANT.

Improvement in Washing-Machines.

No. 132,280.

Patented Oct. 15, 1872.

Fig. 1.

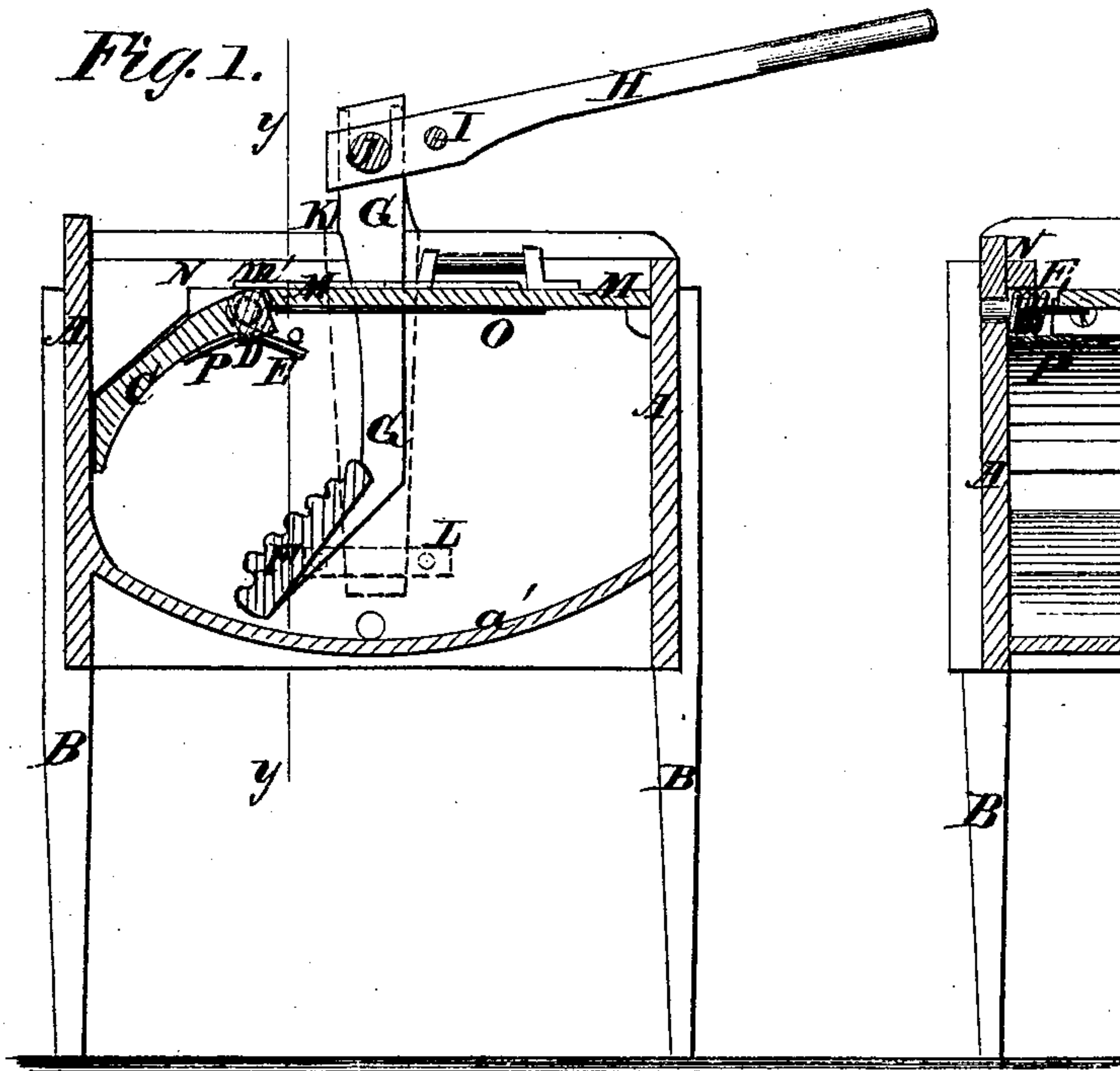


Fig. 2.

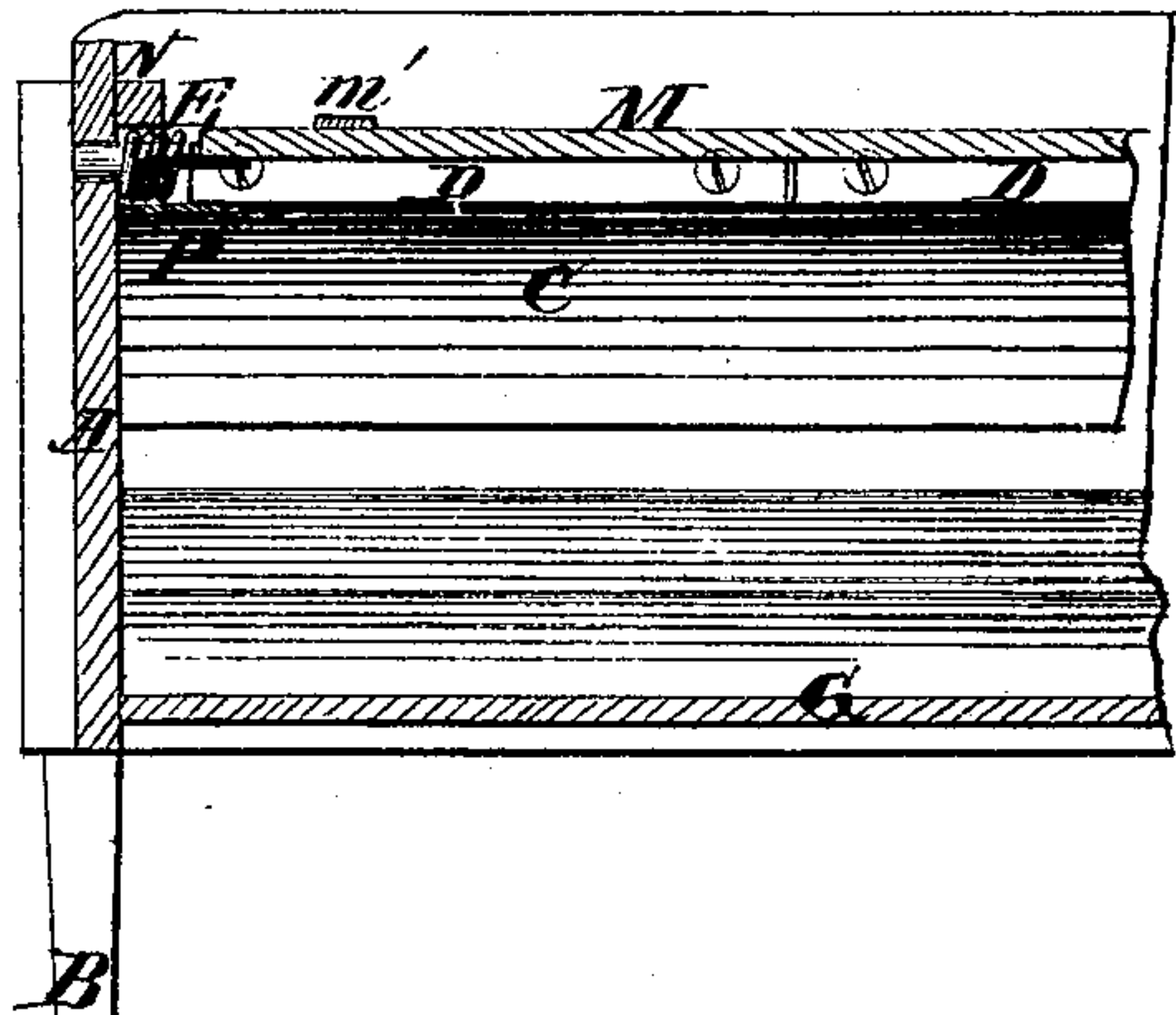
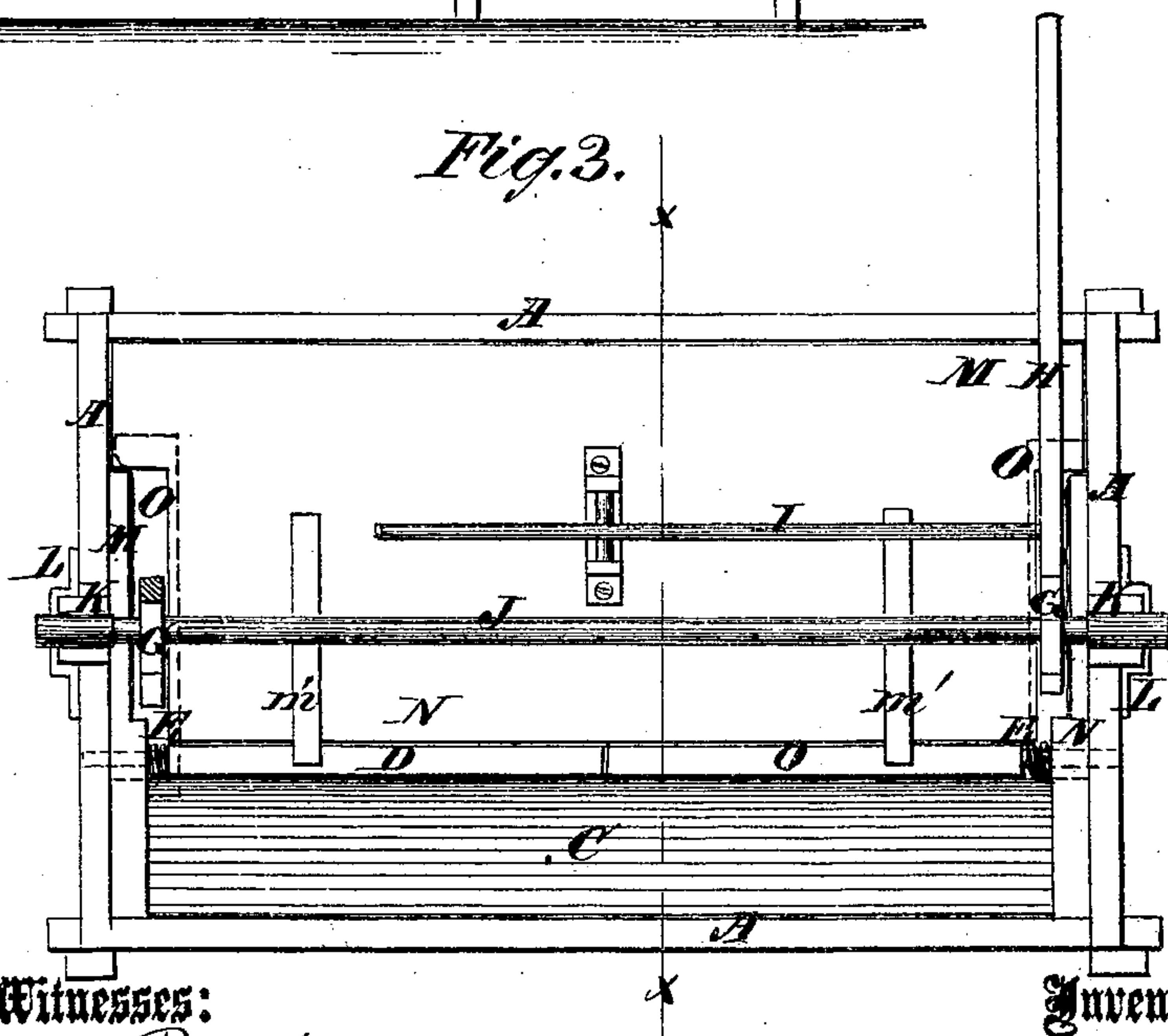


Fig. 3.



Witnesses:

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UNITED STATES PATENT OFFICE.

WILLIAM W. GRANT, OF BLOOMINGTON, ILLINOIS.

IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. 132,280, dated October 15, 1872.

To all whom it may concern:

Be it known that I, WILLIAM W. GRANT, of Bloomington, in the county of McLean and State of Illinois, have invented a new and useful Improvement in Washing-Machines, of which the following is a specification:

Figure 1 is a detail vertical cross-section of my improved machine taken through the line *x x*, Fig. 3. Fig. 2 is a detail vertical longitudinal section of the same taken through the line *y y*, Fig. 1. Fig. 3 is a top view of the same, part being broken away to show the construction.

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, effective in operation, and easily operated, washing the clothes quickly and thoroughly and without injuring them; and it consists in the construction and combination of the various parts of the machine, as hereinafter more fully described.

A is the suds-box, which is made rectangular in form, and is supported upon legs B, of such a length as to raise the machine to a convenient height. The bottom *a'* of the box A is concaved longitudinally in the arc of a circle having its center in or near the axis of the beater. I prefer to make the box A with its ends projecting a little above the front side, and with its rear side projecting a little above its ends, as shown in Fig. 1, for convenience in attaching a wringer. C is a board, the under side of which is concaved upon an arc of a circle, and the upper and forward edge of which is detachably attached to two bars, D, the ends of which are rounded off and enter holes in the rear upper part of the ends of the box A. To the rounded ends of the bars D are attached and around them are coiled wire springs E, the other ends of which rest against stops attached to the ends of the box A. The springs E are so arranged as to hold the lower and rear edge of the board C against the rear side of the box A. The rear edge of the board C is beveled off to fit against the rear side of the box A. This construction allows the board C to swing down to allow the water to flow back into the box A when a wringer is being used. F is the beater-board, the face of which is corrugated longitudinally, the lower corrugation being made the deeper, as shown in

Fig. 1, to better adapt it to operate upon a small quantity of clothes. The board F near its ends is securely attached to the inclined lower ends of the arms G, the upper ends of which are attached to the ends of the levers H at an angle a little greater than a right angle. The levers H are connected, at a little distance from their points of intersection with the arms G, by a cross bar or round, I. The levers H and arms G at their points of intersection are attached to the shaft J, the ends of which project to serve as pivots to the beater, and should be faced with metal to prevent wear. The ends of the shaft J work in notches or slots in the upper ends of the standards K, which are inserted in keepers L attached to the ends of the box A, as shown in Fig. 3, so that the said standards K can be conveniently removed when desired. M is the cover, the forward edge of which rests upon a cleat attached to the upper part of the inner surface of the forward side of the box A. The rear edge of the cover M has short arms *m* attached to it, which rest upon the bars D, as shown in Figs. 1 and 3. The rear part of the end edges of the cover M have long notches formed in them to receive the oscillating beater-arms G, which are kept from coming in contact with the ends of the box A by cleats N attached to said ends. To the ends of the cover M, along the notches in which the beater-arms G work, are attached strips O of rubber cloth or other suitable material to prevent the water from spattering out. Pieces P of similar material are attached to the bars D to cover the springs E.

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

The combination of the suds-box A B, made with a concave bottom, *a'*, concave vibrating back C, detachable pivoting bars D, coiled springs E, beater G H I J, detachable standards K, keepers L, and cover M with each other, said parts being constructed and operating substantially as herein shown and described, and for the purpose set forth.

WILLIAM W. GRANT.

Witnesses:

THOS. SLADE,
ISAAC C. HEWARD.