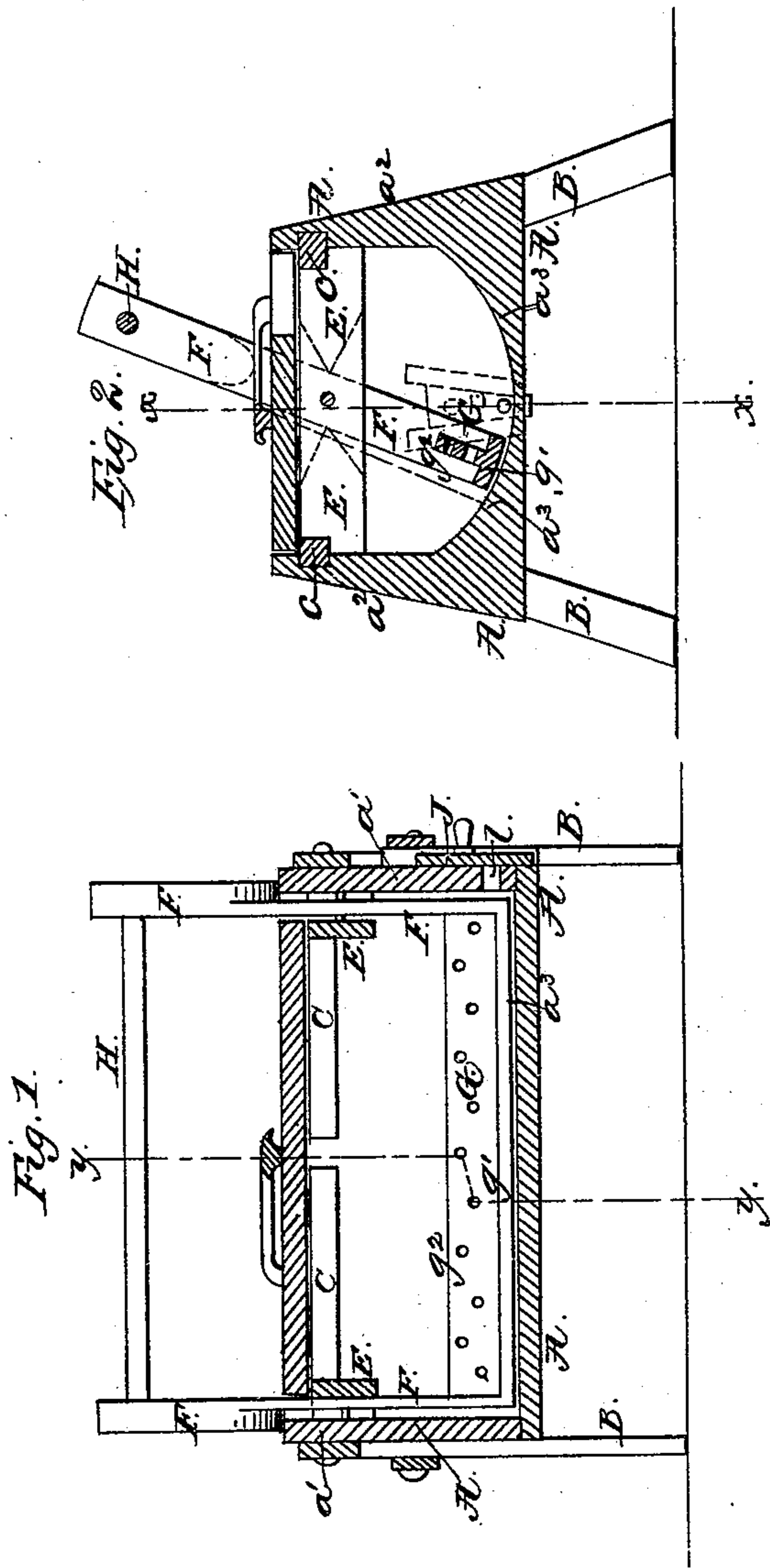


*J. Worden,*  
*Washing Machine,*  
*N<sup>o</sup> 68,275,      Patented Aug. 27, 1867.*



*Witnesses:*  
*Thos. Truske.*  
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# United States Patent Office.

JOHN WORDEN, OF NORMAL, ILLINOIS.

*Letters Patent No. 68,275, dated August 27, 1867.*

## IMPROVED WASHING MACHINE.

*The Schedule referred to in these Letters Patent and making part of the same.*

### TO ALL WHOM IT MAY CONCERN:

Be it known that I, JOHN WORDEN, of Normal, in the county of McLean, and State of Illinois, have invented a new and useful Improvement in Washing Machine; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a vertical longitudinal section of my improved machine, taken through the line  $x x$ , fig. 2.

Figure 2 is a vertical cross-section of the same, taken through the line  $y y$ , fig. 1.

Similar letters of reference indicate like parts.

My invention has for its object to furnish an improved washing machine, simple in construction, effective in its operation, which will not wear or injure the clothes, and which can be manufactured at a comparatively small expense; and it consists in the construction of the beater, in the construction of the box or tub, and in the construction of the sliding gate that closes the discharging orifice.

A is the box or tub, the ends  $a^1$  of which are vertical, and the sides  $a^2$  of which incline inward from the bottom towards the top, as shown in fig. 2. The bottom  $a^3$  upon its interior side is made curved, as shown in fig. 2, to conform to the arc described by the sweep of the beater. The box A stands upon legs B of such a length as to raise the said box to a convenient height, and its interior surface is entirely without grooves, slots, or projections to wear and injure the clothes while being washed. C are cleats or flanges, attached to the inner sides of the side boards  $a^2$  near their upper edges for the cover D to rest upon. E are end pieces or slats attached to the inner surface of the end boards  $a^1$ , of the box A, for the ends of the cover D to rest upon, and to furnish supports for the arms F of the beater G to be pivoted to. The middles of the end pieces E are slotted for the reception of the beater-arms or levers F. The end edges of said slots, both upon the upper and lower sides, are bevelled off, as shown in dotted lines in fig. 2, to afford space for the play of said arms. The arms F are pivoted to the end pieces E by bolts, as shown in figs. 1 and 2, and their upper ends are made longer and heavier than their lower ends, to give momentum to the stroke of the beater. The beater G consists of a bar,  $g^1$ , attached to the lower ends of the arms or levers F, and having its corners rounded off, and of the bar  $g^2$ , the edge of which rests upon the middle part of the bar  $g^1$ , and the ends of which are securely attached to the arms or levers F. The bar  $g^2$  has numerous holes formed through it for the passage of the water or washing liquid, as the beater is swung back and forth through the box A. H is a cross-bar connecting the upper ends of the arms or levers F, and serving as a handle for operating the beater. A portion of the cover D may be cut away, as shown in fig. 2, to allow space for the attachment of a wringer, which may be kept permanently attached to the edge of the box A. I is the orifice through which the water in the tub may be drawn off after being used. The orifice I is closed by a sliding gate, J, which is made slightly wedge-shaped, and slides up and down in grooves in cleats attached to the end of the box in a slightly-inclined position, to correspond with the wedge-shaped form of the gate J. The gate J has a rubber plate or equivalent attached to its inner side, which, when the said gate is pushed down, closes the discharging orifice I more closely, and when the gate is raised acts as a spring to hold it in any position to which it may be raised.

In using the machine the clothes are put into the box A upon both sides of the beater G, with a sufficient quantity of water, and a small quantity of soap or washing-fluid. The beater is then operated by taking hold of the cross-bar H and moving it back and forth, dashing the clothes violently against the inclined sides of the box A. Then, as the beater swings back, the inclined sides and curved bottom of the box cause the clothes to partially revolve, as they settle back, so that a different part of said clothes is operated upon at each stroke of the beater.

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

The combination of the beater G, having the bars  $g^1 g^2$ , lever F, tub A, with vertical ends  $a^1$ , inclined sides  $a^2$ , curved bottom  $a^3$ , and discharge orifice I, sliding wedge-shaped gate D, having rubber or equivalent plate attached to its inner side, all constructed and operating substantially as herein set forth for the purpose specified.

JOHN WORDEN.

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