2 Sheets—Sheet 1.

T. STUMM.

Washing-Machines.

No. 207,457. Patented Aug. 27, 1878.

Fig. 1

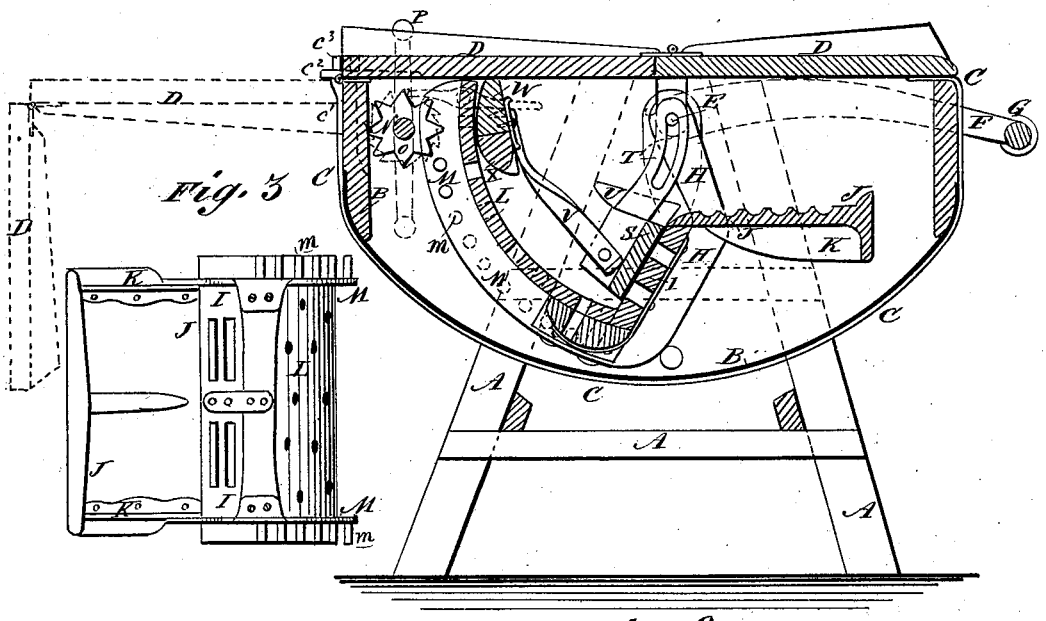
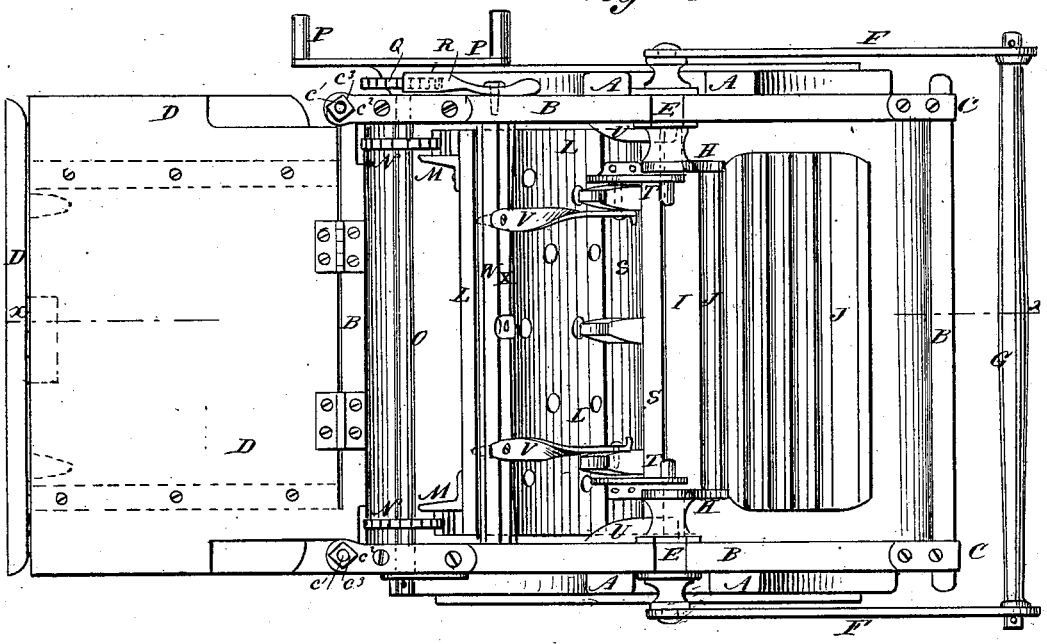


Fig. 3

Fig. 2



WITNESSES:

C. Neveux

C. Sedgwick

INVENTOR:

T. Stumm

BY Munn & Co

ATTORNEYS.

2 Sheets—Sheet 2.

T. STUMM.

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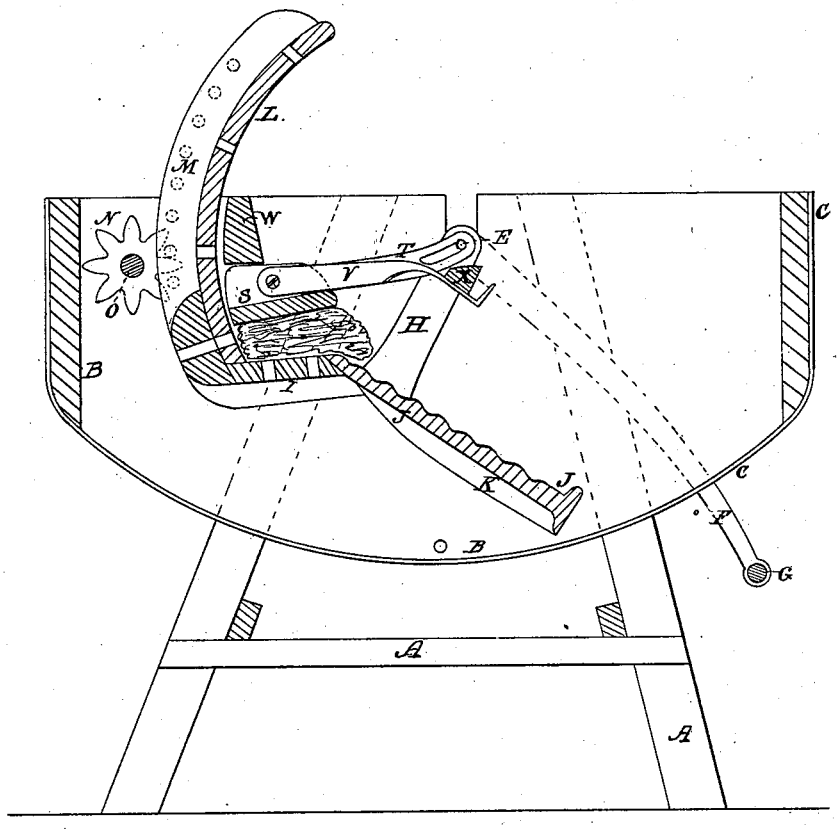
Fig. 4.



WITNESSES:

W. W. Hollingsworth

A. M. Tanner

INVENTOR:

Thomas Stumm

BY

ATTORNEYS.

UNITED STATES PATENT OFFICE.

THOMAS STUMM, OF ADA, OHIO.

IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. **207,457**, dated August 27, 1878; application filed June 6, 1878.

To all whom it may concern:

Be it known that I, THOMAS STUMM, of Ada, in the county of Hardin and State of Ohio, have invented a new and useful Improvement in Washing-Machines, of which the following is a specification:

Figure 1 is a vertical section of my improved machine, taken through the line *x x*, Fig. 2. Fig. 2 is a top view of the same, the cover being shown as turned back. Fig. 3 is a detail under-side view of the rubbing-board, the pressure-board, and the perforated apron. Fig. 4 is a longitudinal sectional view, representing the position of the parts when the machine is used for wringing or squeezing the water from the clothes.

Similar letters of reference indicate corresponding parts.

The present invention relates to certain improvements in that class of washing-machines covered by Letters Patent granted to me May 5, 1874, No. 150,494, and February 16, 1875, No. 159,855.

The invention consists in the construction and combination of parts, which will be hereinafter more fully described, and then set forth in the claims.

A represents the frame of the machine, to which are attached the ends of the suds-box B. The suds-box B is made with vertical ends and sides, and with a semi-cylindrical bottom, made of zinc. C are metal straps, which are attached at one end to the top edges of one end of the ends of the suds-box B. The straps C pass across the end parts of the side boards of the suds-box B, along the side edges of the bottom, and have bolts c^1 formed upon or attached to their other ends, which pass up through holes in the projecting ends of the plates c^2, attached to the upper edge of the other ends of the end boards of the said suds-box B, and have nuts c^3 screwed upon their upper ends.

By this construction the straps C hold the metallic bottom of the suds-box B in place, hold the parts of its end boards together when they are made of several pieces, and enable any shrinkage to be taken up.

D is the cover, which is made in two parts, hinged to each other at their adjacent edges. The outer edge of one of the parts of the cover D is hinged to the top edge of a side board of the suds-box B.

With this construction a part of the cover D may be turned back to give access to the interior of the suds-box B; or the whole cover may be turned back, as shown in Fig. 2, and in dotted lines in Fig. 1, in which case the cover serves as a table, for convenience in putting in and taking out the clothes.

In notches in the middle part of the upper edges of the ends of the suds-box B work short shafts E, to the outer ends of which are rigidly attached the ends of two levers, F. To the outer ends of the levers F are attached the ends of a cross-bar or round, G, which serves as a handle for operating the machine. To the inner ends of the short shafts or pivots E are rigidly attached the ends of two arms, H, the other ends of which are attached to the end parts of the pressure-board I. The pressure-board I has a number of slots or holes formed through it to allow the suds to pass through freely. To the upper edge of the pressure-board I is attached the inner edge of the rubbing-board J, which is strengthened in position by braces or ribs K, attached to its lower side and to the pressure-board I or arms H. To the lower edge of the pressure-board I is attached the edge of the curved apron L, which has numerous holes formed through it to allow the water to pass through freely. The apron L is strengthened in position by bars M, attached to its lower side. The bars M are provided with rack-pins or teeth *m*, to engage with the teeth of the gear-wheels N, attached to the shaft O. The shaft O revolves in bearings in the end parts of the ends of the suds-box B, and to one of its ends is attached a crank, P, which is made double, to enable the operator to apply more power to it. To the shaft O is attached a ratchet-wheel, Q, with the teeth of which engages the pawl R, pivoted to the end board of the suds-box B.

S is the center-board, against which the clothes are pressed by the pressure-board I. To the end parts of the center-board S are rigidly attached the lower ends of two arms, T, the upper parts of which are slightly curved, and are slotted longitudinally to receive the inner ends of the short shafts E. The

center-board S, when used for washing the clothes, is placed in such a position that the pressure-board I will rest squarely against it when they are brought together. When the center-board S is in position for use in washing clothes the upper edges of its ends rest against the lower side of the blocks U, attached to the inner sides of the ends of the suds-box B, to prevent it from being raised by the pressure of the clothes. To the center-board S, or to strengthening-bars attached to said board S, are pivoted the lower ends of two bars, V, the upper ends of which are bent back to enter holes in the side of the cross-bar W. The ends of the cross-bar W are rigidly attached to the end boards of the suds-box B. To the end parts of the pivoted bars V is attached a cross-bar, X, in such a position as to rest against the lower edge of the cross-bar W when the bent or hook ends of the said bars V are in the holes in the forward side of the said cross-bar W, so as to support the swinging center-board S against the backward pressure when washing clothes.

When the machine is used for washing clothes, the handle G is raised and the clothes are placed upon the perforated apron L, between the pressure-board I and the center-board S. Then by operating the handle G the clothes will be alternately pressed between the pressure-board I and the center-board S, and allowed to be again saturated with water, so that they will be made clean in a very short time.

When the clothes have been washed clean the cross-bar X and the pivoted bars V are swung back from the bar W, upon the pivots of the said bars V, until the said bars V rest upon the center-board S. The handle G is then lowered, which carries the pressure-board I and the curved perforated apron L and the center-board S forward and upward until the rack-bars M *m* come into gear with the gear-wheels N. The gear-wheels N are then operated by turning the double crank P, to carry the curved perforated apron, the pressure-board I, and the center-board S out of and above the water in the suds-box, and until stopped by the said center-board S striking against the lower edge of the cross-bar W. This stops the upward movement of the curved perforated apron L, the pressure-board I, and the center-board S, and as the double crank is further operated the clothes are squeezed between the center-board S and the pressure-board I.

When the clothes have been made sufficiently dry, the double crank P is eased a little, the center-board S is drawn out and swung back, and the clothes are taken out, and are ready to be hung upon the line.

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

1. The combination of the center-board S, slotted arms T, pivoted arms V, and cross-bar X with the shafts E, oscillating apron L, pressure-board I, and the suds-box having the transverse bar W, as and for the purpose set forth.

2. The combination of the transverse shaft O, spur-wheels N, and the rack-bars M *m* with the oscillating apron L, pressure-board I, movable center-board S, and the cross-bar W of the suds-box, as and for the purpose set forth.

THOMAS STUMM.

Witnesses:
SAMUEL WATT, Jr.,
ALVAH T. GARDNER.