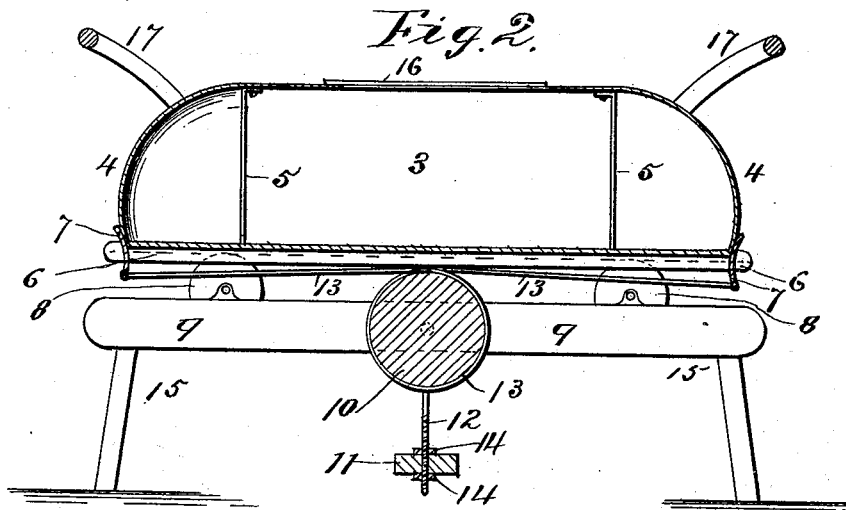
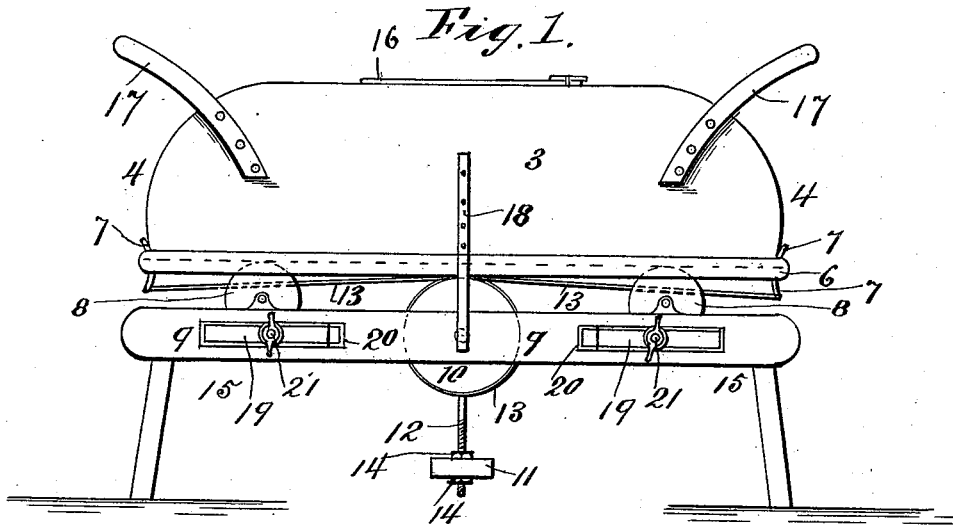


A. C. BRANDT.  
WASHING MACHINE.

No. 491,073.

Patented Feb. 7, 1893.



WITNESSES:

C. T. Bell  
Jos. Doyle

INVENTOR

August C. Brandt

BY

Harner C. Hartman

ATTORNEY.

(No Model.)

2 Sheets—Sheet 2.

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Fig. 3.

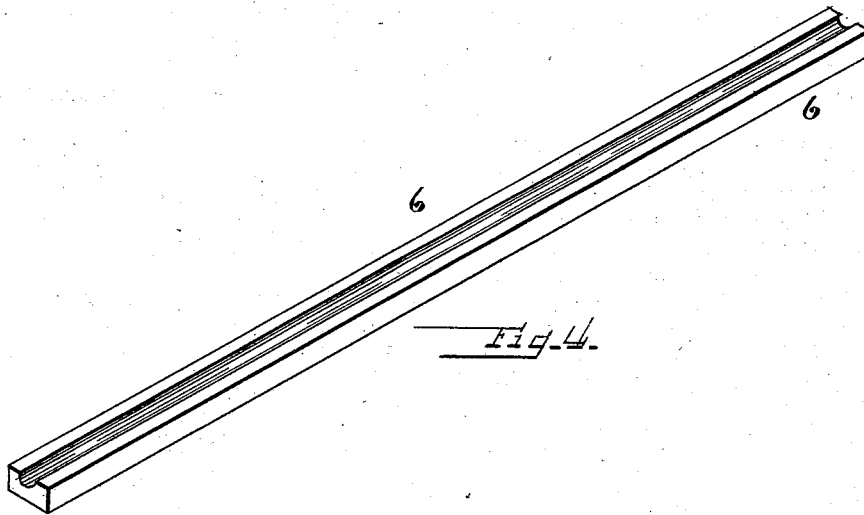
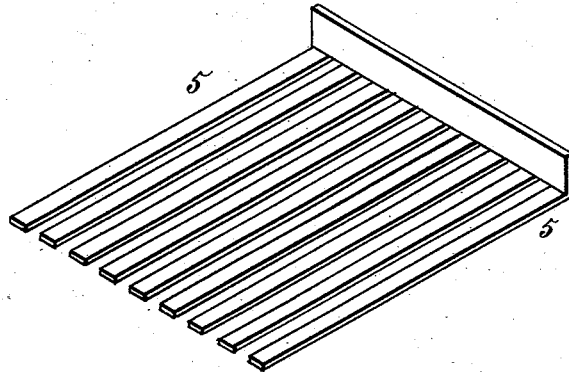


Fig. 4.

WITNESSES:

*C. I. Belt,*  
*H. J. Doyle,*

INVENTOR

*August C. Brandt*

BY

*H. C. Hartman*

ATTORNEY.

# UNITED STATES PATENT OFFICE.

AUGUST C. BRANDT, OF FORT WAYNE, INDIANA.

## WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 491,073, dated February 7, 1893.

Application filed July 30, 1892. Serial No. 441,647. (No model.)

*To all whom it may concern:*

Be it known that I, AUGUST C. BRANDT, a citizen of the United States, residing at the city of Fort Wayne, in the county of Allen, in the State of Indiana, have invented certain new and useful Improvements in Washing-Machines; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to improvements in washing machines, in which the suds-box is given a motion which causes a flow of the water from one end to the other, thereby cleansing the clothes. And its objects are to provide an improved suds-box and also improved means to operate the suds-box, which objects are attained by the mechanism illustrated in the accompanying drawings, in which

Figure 1 is a side view of my improved washing machine, and Fig. 2 is a vertical section thereof, taken through the center of the machine longitudinally. Fig. 3 is a perspective view of the slats or grates, and Fig. 4 is a perspective view of one of the grooved rails.

Similar numerals of reference refer to similar parts throughout the views.

The suds-box 3 is a longitudinal box provided with curved ends 4, and inside of it, near each end, are placed vertical slats or ribs 5, against which the clothes are dashed, the ribs also providing a space beyond for the water to flow into, so as to pass through the clothes. The suds-box is also provided with two grooved guide plates 6, which I attach on either side of the bottom longitudinally, and adapt them to move upon and be guided by friction wheels 8. I attach handles 17 at each end for operating, and a lid 16 with a button or other fastening to secure it in place. At each end, preferably in center line of the suds box, I attach at or near the bottom two projections 7, to which a cord 13 may be conveniently secured.

I construct a supporting frame 15 of suitable height, with side bars 9 substantially the same length as the guide plates 6. Upon these side bars I place friction wheels 8, preferably

erably two on each side, adapted to move within the grooves of the guide plates 6. The suds-box provided with the grooved guide plates as described being placed upon this frame, and supported by the guide plates resting upon the friction wheels placed within the grooves thereof, constitutes a washing machine provided with means whereby the operator can move the suds-box easily back and forth, throwing the water and clothing from one end to the other alternately, and thereby cleansing the clothing. But the return motion at either end of the stroke, or movement of the suds-box, requires the operator to exert the greater force in stopping and starting the suds-box in its return movement. To overcome this difficulty, I stop the movement of the suds-box at either end of the stroke adjustably, by attaching a bar or projection 18 rigidly to the side of the suds box, and extend it down past the side bar 9. On the side bar 9, on either side of this projection 18, I place adjustable stops 19, which are slotted bars having a projection 20 at one end, and secured to the side bar 9 by set screws 21. It is found in practice that a movement of eight or ten inches is a preferable length of travel of the suds-box for a light washing; for heavier work a longer travel is desirable. I further avoid the difficulty by the use of an increase lever fulcrumed on a rod or drum mounted transversely on the side bars of the supporting frame, the lower end having a weight attached, and the upper end provided with means of attachment which shall permit its operation and connection with the suds-box without interfering with its connections on the friction wheels. A preferable method of such connection with the suds-box, and construction of this particular device, is illustrated in the drawings, and consists of the following: A drum 10, provided with journals is mounted in bearings on the side-bars 9 of the supporting frame transversely, preferably centrally between the ends. To this drum I attach a rod 12, upon which I place a counter weight 11, with means to adjust its distance from the drum 10.

In the drawings, a preferable method is shown, which consists in threading the rod 12 and placing screw nuts 14 on either side of the

counter-weight. As a preferable means of connecting the suds-box and drum, I place a cord 13 once or twice around the drum 10 and drawing the ends tight on either side, I secure them to the ends of the suds-box respectively, preferably by attachment to the projections 7, so that any movement of the suds-box revolves the drum. When not in use, the suds-box 3 is directly over the supporting frame 9 and the counter weight hangs perpendicular thereto, exerting no force upon the drum 10. When the suds-box is pushed toward either end, the drum is turned by the means described, raising the counter weight 11 at an increasing distance from the axis of the drum, until its supporting rod 12 is horizontal. At this point the counter weight 11 exerts its greatest force upon the drum, and as soon as the opposing force of the operator is removed, tends to give a return motion to the suds-box.

The operation of the device appears from the foregoing description, the suds-box being mounted with its grooved guide-plate on the friction wheels, and the counter weight attached to the drum and the string or cord 13 placed around it and secured as above described. The operator places a sufficient amount of hot water and soap inside of the suds-box, places the clothes therein and closes the lid 16 securely and then proceeds to move the suds-box back and forth, until the clothes have been washed clean by the alternate flow and dash of the water through them, as the box is moved as described, the counter weight greatly assisting the return motion, and with

the friction wheels, it reduces the labor of operation to the minimum.

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

1. The combination of a suds-box provided with rounded ends and with vertical slats near each end, with grooved guide plates adapted to move upon and be held in place by friction rollers: a supporting frame provided with friction wheels adapted to support said guide plates and suds-box: a drum provided with journals mounted in bearings upon said supporting frame transversely: a cord encircling said drum and secured with tension to both ends of said suds-box: a rod attached to said drum and provided with a counter weight adjustably attached to the rod.

2. In a washing machine, the combination of a suds-box, with guide plates adapted to move upon friction wheels and be guided thereby; a supporting frame provided with friction wheels adapted to support and engage said guide plates; a drum provided with a counter weight and journals, mounted revolvably and transversely upon said supporting frame, and means whereby the drum is revolved by the movement of the suds-box over it.

In testimony whereof I hereunto subscribe my name, in the presence of two witnesses, this 12th day of July, A. D. 1892.

AUGUST C. BRANDT.

Witnesses:

ALBERT BAKER,  
H. C. HARTMAN.