H. G. ROBERTSON.

WASHING MACHINES.

No. 190,371. Patented May 1, 1877.

Fig. 1.

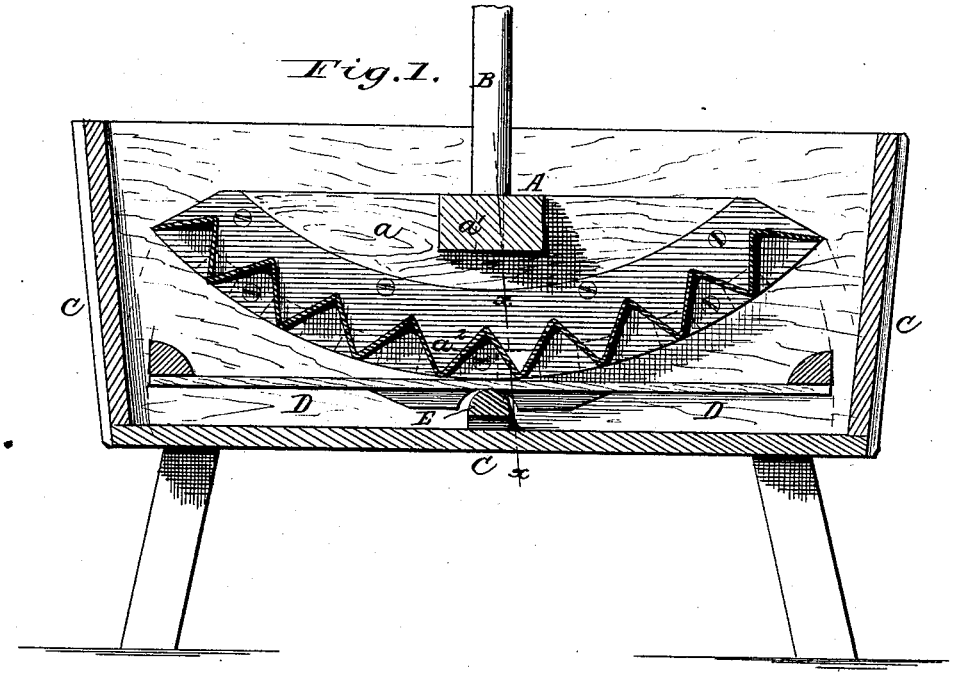


Fig. 2.

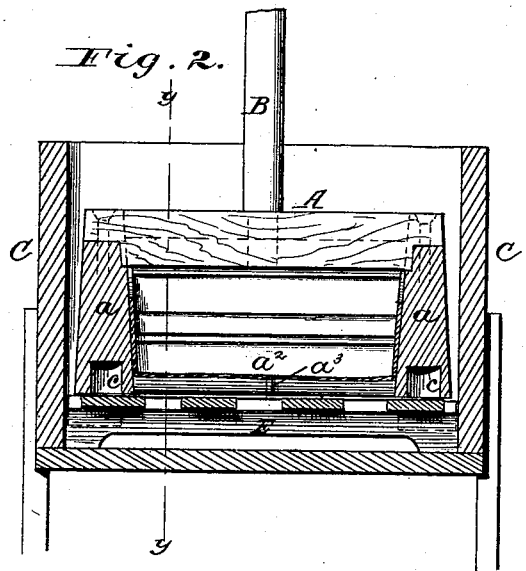
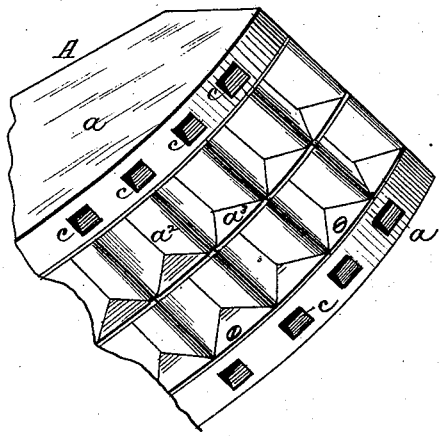


Fig. 3.



Attest:
H. C. Penniu
A. H. Norris.

H. G. Robertson.
Inventor.
By. James L. Norris.
Attorney.

UNITED STATES PATENT OFFICE.

HARVEY G. ROBERTSON, OF ASHEVILLE, NORTH CAROLINA.

IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. **190,371**, dated May 1, 1877; application filed February 5, 1877.

To all whom it may concern:

Be it known that I, HARVEY G. ROBERTSON, of Asheville, in the county of Buncombe and State of North Carolina, have invented certain new and useful Improvements in Washing-Machines, of which the following is a specification:

This invention relates to a new and improved machine for washing and bleaching clothes, its object being to provide an apparatus that, while subjecting the clothing to a rubbing function, will at the same time force a current or currents of air mixed with water through the same, and thus submit all portions to the action of the water or cleansing agent, and effectually cleanse the clothes from all grease and dirt.

The invention consists of a segmental rocker-frame, constructed of two parallel side pieces, connected by an intermediate corrugated or fluted section, the parallel sides having in their under edge a series of air spaces or recesses, and the frame, as constructed, being adapted to rock in a tub or tank, the air recesses or spaces and the intermediate fluted section serving to collect and force currents of air and water through the material to be cleansed.

The invention also consists of certain other improvements, which will be fully described hereinafter.

In the drawing, Figure 1 represents a longitudinal vertical sectional view of my invention; Fig. 2, a transverse vertical section, and Fig. 3 a detached view of a portion of the rocker-frame.

In the drawing, the letter A represents a segmental rocker, constructed of wood, metal, or other suitable material, and provided on its lower side with a series of chambers or recesses, which may be of any convenient number and shape, as may be desired.

The said rocker is composed of two parallel segmental side pieces, *a a*, united at the top by means of a cross-bar, a^1, and inclosing an intermediate corrugated segmental section, a^2, of sheet or cast metal or wood, having a longitudinal partition, a^3, running along its bottom, which divides the recesses into a number of smaller recesses. The depressions in said section form the air-spaces, the curved or lower edges of said segmental side pieces being provided with a series of depressions, *c*, of any desired shape, which serve to increase the number of air-recesses, and thereby assist in the work to be done. To the cross-bar of the rocker is secured a handle, B, by means of which it may be operated.

The letter C represents a rectangular tub or tank, of such size that the rocker can be conveniently worked therein, and in said tub or tank is located a slotted false bottom, D, which is supported at the center by means of a cross-piece, E, secured transversely across the bottom of the tank midway between its two ends. Said false bottom is reversible, and may be inverted, if desired, in the tub, in one position forming a rocking bottom, and in the other a stationary slotted false bottom, which allows a free circulation of air and water through the clothes while the rocker is in operation.

The operation of my invention will be readily understood from the above description. The clothes being properly soaked and placed in the tub or tank upon the false bottom placed therein, a sufficient quantity of water is then placed in the tub to just cover the clothes, and the rocker is then placed in the tub, and a rocking or oscillating motion imparted to it by means of the handle. The depressions or recesses will collect air as the rocker oscillates, and force it intermittently with a current of water through the material, bringing every portion of the same into intimate contact with the cleansing fluid. The rocking bottom will tend to keep the clothes in a loose and open condition, which allows of the better penetration and action of the water, while the slots in the same allow of a continuous current of air and water to be forced through the material.

What I claim, and desire to secure by Letters Patent, is—

1. The rocker-frame A, constructed of two parallel side pieces, having in their under edge a series of air spaces or recesses, *c c*, and an intermediate fluted section, a^2, the said

rocking frame adapted to operate in a tub or tank, substantially as and for the purpose described.

2. In combination with the segmental rocker, provided with air-spaces on its under side, and the tank or tub in which said rocker is operated, the removable slotted bottom, adapted to operate substantially as described.

In testimony that I claim the foregoing I have hereunto set my hand in the presence of the subscribing witnesses.

HARVEY G. ROBERTSON.

Witnesses:
J. M. ALEXANDER,
F. S. H. REYNOLDS.