

E. SMITH.
Washing-Machines.

No. 137,494.

Patented April 1, 1873.

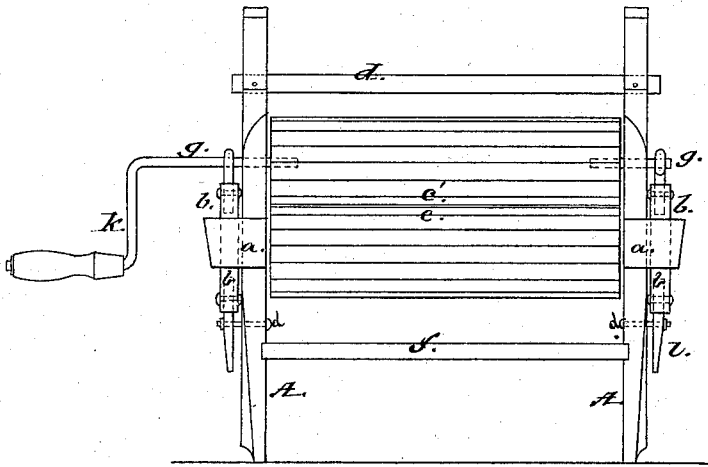


Fig. 1.

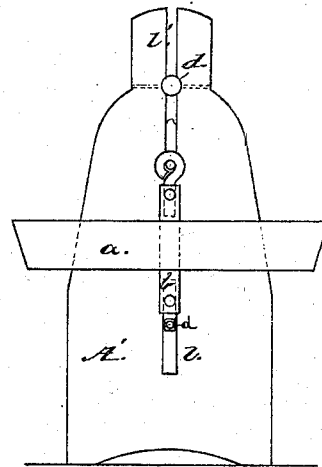


Fig. 2.

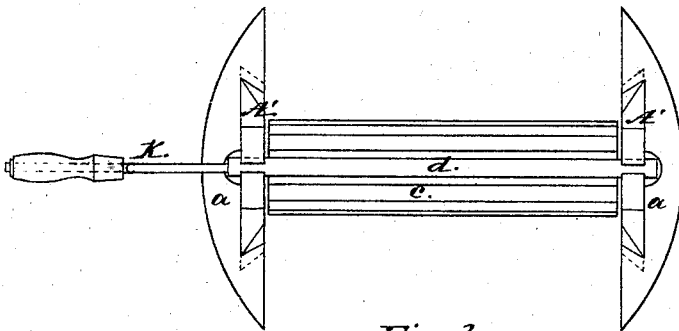


Fig. 3.

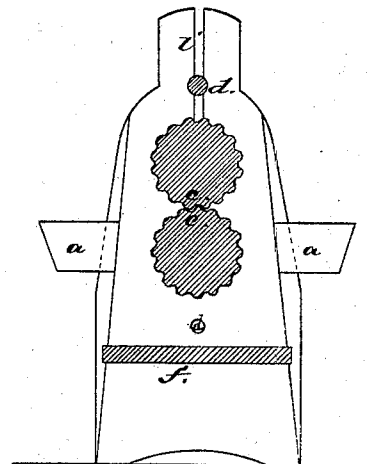


Fig. 4.

Attest;
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UNITED STATES PATENT OFFICE

EDWIN SMITH, OF WHITESTOWN, NEW YORK.

IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. **137,494**, dated April 1, 1873; application filed December 20, 1872.

To all whom it may concern:

Be it known that I, EDWIN SMITH, of Whites-town, in the county of Oneida and State of New York, have invented certain Improvements in Washing-Machines, of which the following is a specification:

Nature and Object of my Invention.

My invention relates to an improvement in the manner of cleansing clothing; and consists principally in a simple arrangement of corrugated or fluted rollers so combined as, when at rest, they will engage with each other in a manner similar to the teeth of a spur-wheel.

In connection with this principal arrangement I combine an arrangement for securing the cleansing or squeezing device to the tub, containing the usual proportion of water and soap, or pure water; and this consists in forming a segment of a circle, which may be of wood or other suitable material, conically to suit the shape of the tub, so that by pressing upon it a perfect bearing will be formed with the inside surface of the tub to keep the machine in its place during the operation of the same.

Still another feature of my invention relates to the manner of holding together the upper and lower corrugated or fluted rollers by an elastic strap or spiral spring, so that the upper roller may accommodate itself, while in operation, to the garment being squeezed without its incurring the rough usage that would be consequent with a rigid attachment.

Description of Drawing.

Figure 1 is a side elevation of my machine complete. Fig. 2 is an end elevation. Fig. 3 is a top view. Fig. 4 is a vertical transverse section on line *x x* of Fig. 1.

Similar letters of reference denote like parts in all the figures.

General Description.

The frame of the machine is composed of vertical end pieces A A, which form stand-

ards to rest on the ground when not in use, or in the bottom of the tub when in service. The upper half of these standards is beveled and dovetailed to accommodate the segmental pieces *a* which slip over them from the top until they form, with the said segmental pieces, perfect dovetail-joints to hold them firmly together. These standards A A or end-pieces are held together by a bar, *d*, at the top, and a plate, *f*, below the rollers. Slots *v v* are formed in the standards opening out of the top, to receive the journals of the upper roller. The lower roller *c* finds suitable fixed journal-bearings in the standards A A while the upper roller *e* finds its journal-bearings in the loops *g g*, and play vertically as a larger or smaller garment is passing through between the corrugated surfaces. *b b* are coiled springs, of metal, or straps of India-rubber tubing, which are attached at their upper ends to the eyes *g g*, and at their lower to tongues *i i*, which are held to the standards A A by the pins *d d*. A crank, K, with a suitable handle, is fixed in the upper roller, by which said roller is revolved.

The operation of the machine is very simple. The garments to be cleansed are put through the usual boiling and soaping manipulations, and are then taken in hand and held against the surfaces of the rollers while the crank is being turned by the operator. The garment is drawn in and squeezed, and thereby relieved of the dirt. This operation may be repeated until the garments are thoroughly cleansed.

Claim.

What I claim as new and my invention, and wish to secure by Letters Patent, is—

The two rollers *c c'*, combined with frame A *d f*, the springs *b*, and conical beveled segments *a*, all arranged as described, and for the purpose set forth.

EDWIN SMITH.

Witnesses:

CHAS. E. SMITH,
B. A. CLARK.