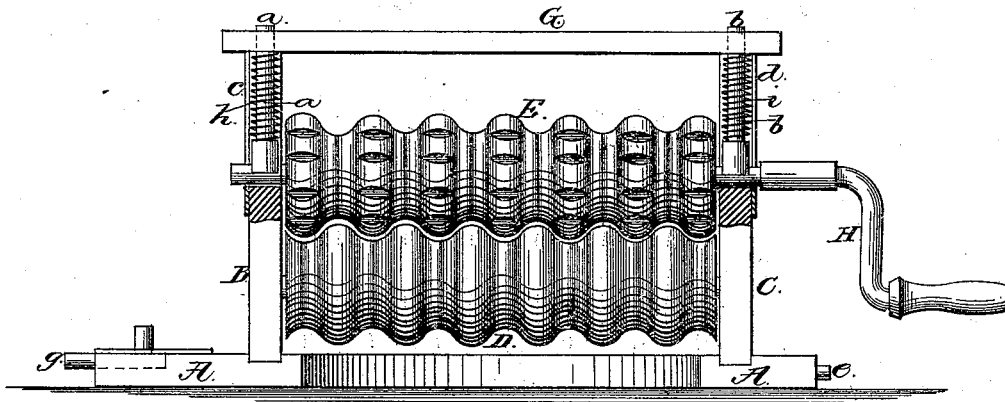


H. N. TUCKER.  
WASHING-MACHINE.

No. 186,902.

Patented Jan. 30, 1877.



Witnesses:

E. S. Balbon  
Wm. J. Ward.

Inventor:

Horace N. Tucker.

# UNITED STATES PATENT OFFICE.

HORACE N. TUCKER, OF STOUGHTON, MASSACHUSETTS.

## IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. 186,902, dated January 30, 1877; application filed April 10, 1876.

*To all whom it may concern:*

Be it known that I, HORACE N. TUCKER, of the town of Stoughton, in the county of Norfolk and State of Massachusetts, 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 character, construction, and operation of the same, reference being had to the accompanying drawings, which make part of this specification, in which the figure is a front elevation, partly in section, of the machine, showing the two rollers, posts, bed-piece, top rail, &c.

My improvement relates to a new and improved apparatus for washing quickly and thoroughly all descriptions of family clothing.

My improvement consists in the use of two rollers—one fluted or beaded transversely, and the other fluted both transversely and longitudinally—so arranged that the prominent portions of one will work in the depressed portions of the other, producing both a squeezing and rubbing operation, as the clothes are drawn through by revolving the crank alternately in opposite directions until the clothes are quickly and thoroughly cleansed, the journals of the upper roller working in slots, and held down by the metallic bearings and springs, which yield for the passage of buttons or other variations in thickness.

The advantages of my improvement in the upper roller consist in that the clothes are fed through more surely, and are less liable to become entangled on the rollers; and it also acts with greater efficiency in removing the dirt from the clothes by being thus doubly corrugated.

I make the frame of the working apparatus of the bed-piece A, into which are fitted the posts B C, which, after receiving the roller D, are secured by screws or otherwise. I furnish the posts B and C with metallic journal-bearings *h* and *i*, for the journals of the roller E to work in, and also to hold in place the journal-bearings *a b*. After placing the upper roller E, I put into the slots of posts the journal-bearings *a b*, around which are placed the springs *c d*. I then fit the top rail G with holes, in which the upper ends of the bearings *a* and *b* play, and secure it to the posts by screws or otherwise.

I make the roller D with transverse beads and grooves, and the roller E with both transverse and longitudinal beads and grooves, and so arranged that the most depressed portions of the one roller will receive the prominent portions of the other, so that when the upper roller E is revolved the friction of the grooves and beads will cause the roller D to revolve in the opposite direction, so as to feed the parcel to be washed through in either direction.

I fit the bed-piece A to any common wash-tub, in which holes are bored to receive the dowels *e* and the slide-bolt *g*, which dowels and bolt, together with the friction of the tub and ends of the bed-piece A, hold the machine in position.

To use this machine I put into the tub a sufficient quantity of hot water, and put in the clothes, they having been previously soaped and folded to correspond with the length of the machine. I then put one end of the parcel (which may consist of several pieces folded together) between the rollers D and E, and revolve the crank H until the parcel has passed nearly through, then turn in the opposite direction, and so on until the articles are fully cleansed.

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

1. The combination of a roller, E, provided with alternating circumferential depressions and elevations, and with longitudinal corrugations formed in said elevations, with one or more circumferentially-corrugated rollers, D, as constructed and arranged with relation to each other, for the purposes set forth.

2. The roller E, having transverse elevations and depressions of equal width, height, and depth, and provided with longitudinal slots in the elevations, as shown, in combination with one or more rolls, D, having corresponding elevations and depressions, and so arranged relatively to the upper roll as to mesh therewith throughout its whole extent, as and for the purpose specified.

HORACE N. TUCKER.

Witnesses:

E. J. BALLOU,  
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