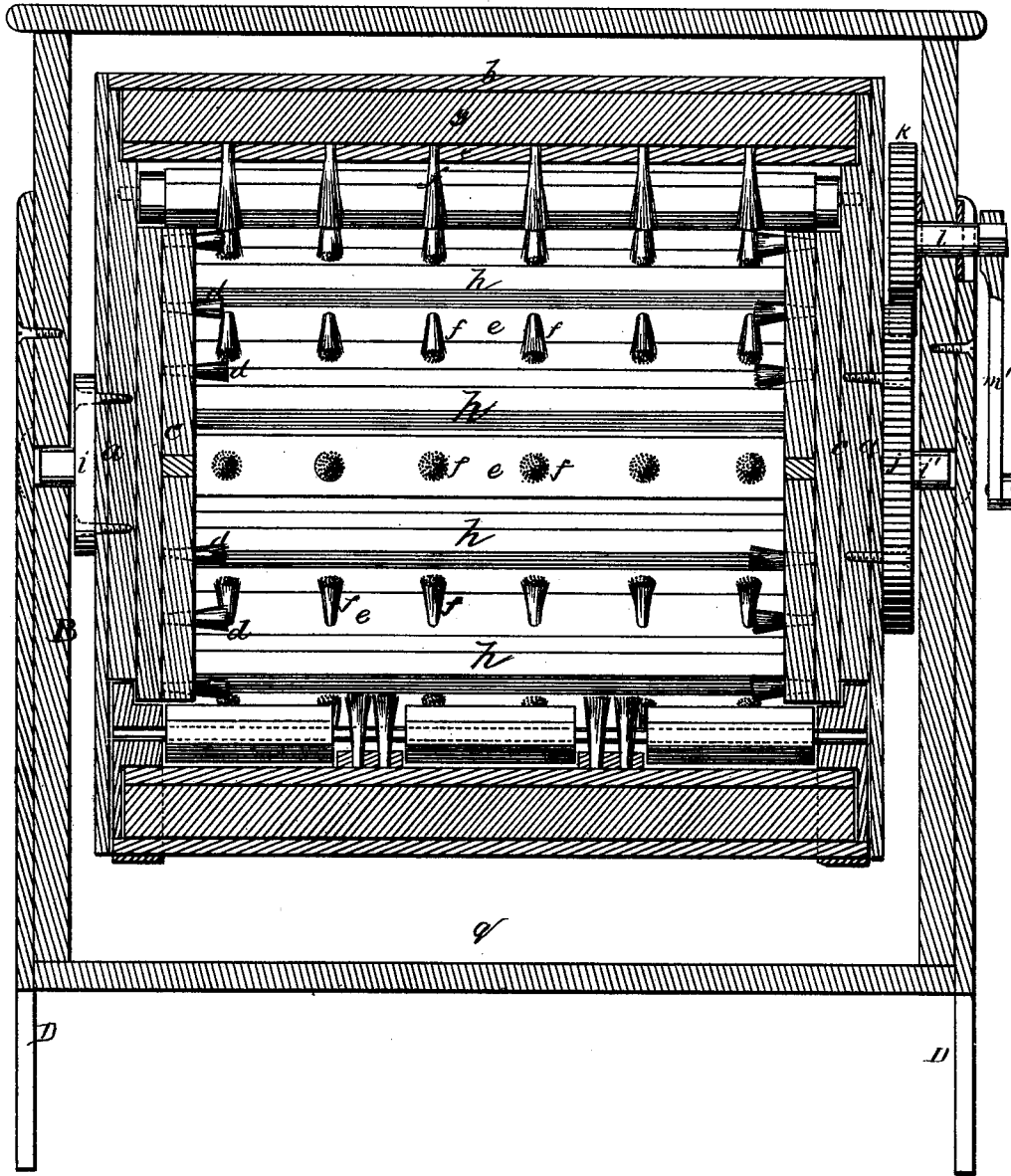


J. O. BEAUPERLAND.  
Washing-Machine.

No. 198,504.

Patented Dec. 25, 1877.

Fig. 1.



WITNESSES  
*Villette Anderson,*  
*George A. Poulton,*

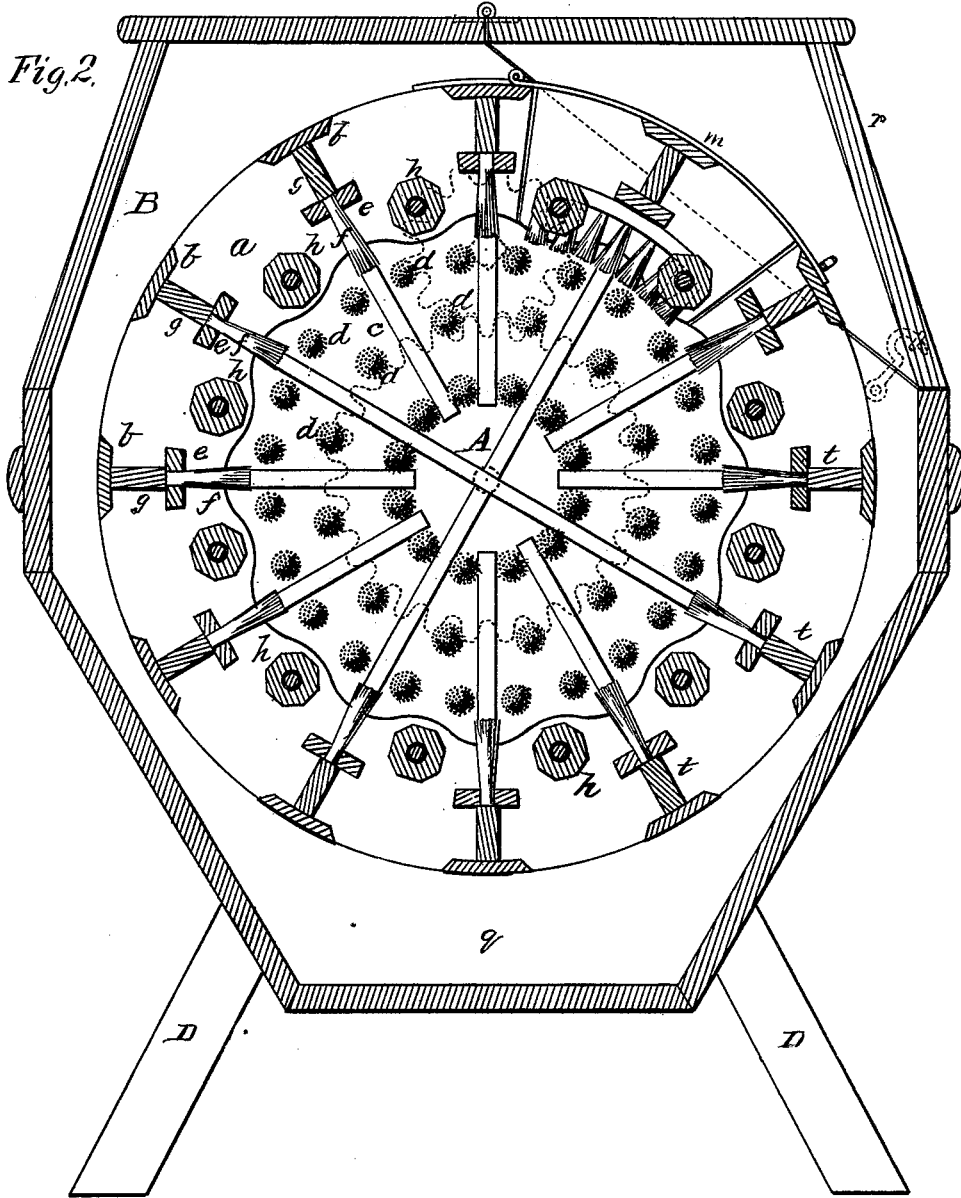
INVENTOR  
*Joseph O. Beauperland,*  
*by E. W. Anderson,*

ATTORNEY

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# UNITED STATES PATENT OFFICE.

JOSEPH O. BEAUPERLAND, OF FALL RIVER, MASSACHUSETTS.

## IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. **198,504**, dated December 25, 1877; application filed September 7, 1877.

*To all whom it may concern:*

Be it known that I, JOSEPH O. BEAUPERLAND, of Fall River, in the county of Bristol and State of Massachusetts, have invented a new and valuable Improvement in Washing-Machines; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a longitudinal vertical section of this invention. Fig. 2 is a transverse vertical section of the same.

This invention has relation to improvements in washing-machines; and the nature of the invention consists in a cylinder composed of two spaced heads, connected together by spaced strips carrying tufts of bristles, and having prismatic rollers journaled in the heads between the strips. The said heads have radial or inclined strips, which prevent the heads from warping, and are provided with spaced bristly tufts, as hereinafter more fully set forth.

In the annexed drawings, the letter A designates the cylinder, having two wooden heads, *a*, connected together by suitably-spaced strips *b*. These latter are mortised into the heads, and are designed to be readily detachable therefrom.

Inside of the heads *a*, and properly secured thereto, are heads *c*, provided with diverging spaced cleats, and with spaced bristly tufts *d* between said cleats, which cleats prevent the said tufts from being bent down during the rotation of the cylinder.

Inside of the strips *b* and parallel thereto are other strips, *e*, having spaced bristly tufts *f* extending from end to end thereof. These latter strips are backed by a wooden key, *g*, engaged in radial grooves in the heads *a* aforesaid, and bearing against the inner surface of the said strips *b*. By removing the latter, drawing out the keys *g*, and then removing the brush-strips, the tufts may be renewed when worn out. Between the tuft-strips aforesaid are journaled, in the heads *a*, the octagonal rollers *h*.

The cylinder aforesaid is provided with a hinged door, *m*, through which clothing is introduced into its interior. It is provided with gudgeons at each end, lettered, respectively,

*i i'*, by means of which the cylinder is journaled in the suds-box B.

The gudgeon *i'* is provided with a gear-wheel, *j*, that engages a pinion, *k*, upon an independently-journaled shaft, *l*, extending through and having its bearings in the end of the said box.

Rotary motion is imparted to this shaft *l* by means of a crank-arm, *m'*, and, through the medium of gear-wheels *j k*, to the cylinder aforesaid.

The suds-box may be supported on suitable legs D. It has a well, *g*, at its bottom designed to hold a quantity of hot or cold water and soap, which is introduced into it through a hinged door, *r*, which, when closed, shuts the cylinder in completely.

The articles to be cleansed are introduced into the cylinder through the hinged doors *r m*, being preferably well rubbed with soap or other saponaceous compound before such introduction. The doors are then closed, and rapid rotation imparted to the cylinder for a greater or less time, according to the more or less soiled condition of the clothing.

The clothing, by constantly falling toward the bottom of the cylinder over the rollers, is subjected on all sides to a vigorous rubbing by the brushes, and is soon thoroughly cleaned. The strips *b e* form, with the keys *g*, arranged between the two, a species of buckets, *t*, that carry up the water and discharge it upon the clothes. It then percolates through the same and carries off the dirt. The dirty water is let out of the case by means of a faucet, or other equivalent device, at its bottom.

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

1. In a washing-machine, the cylinder A, having the spaced brushes *e f*, and the prismatic rollers *h*, arranged between the same, substantially as specified.

2. The washing-machine cylinder, having the buckets *t*, the spaced end tufts *d*, the longitudinal strips *e*, having spaced tufts *f*, and the polygonal rollers *h*, combined and operating substantially as set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

JOSEPH O. BEAUPERLAND.

Witnesses:

H. F. DUBUQUE,  
JOHN A. COPPY.