

(Model.)

J. B. RICHARDSON.  
WASHING MACHINE.

No. 328,255.

Patented Oct. 13, 1885.

Fig. 2.

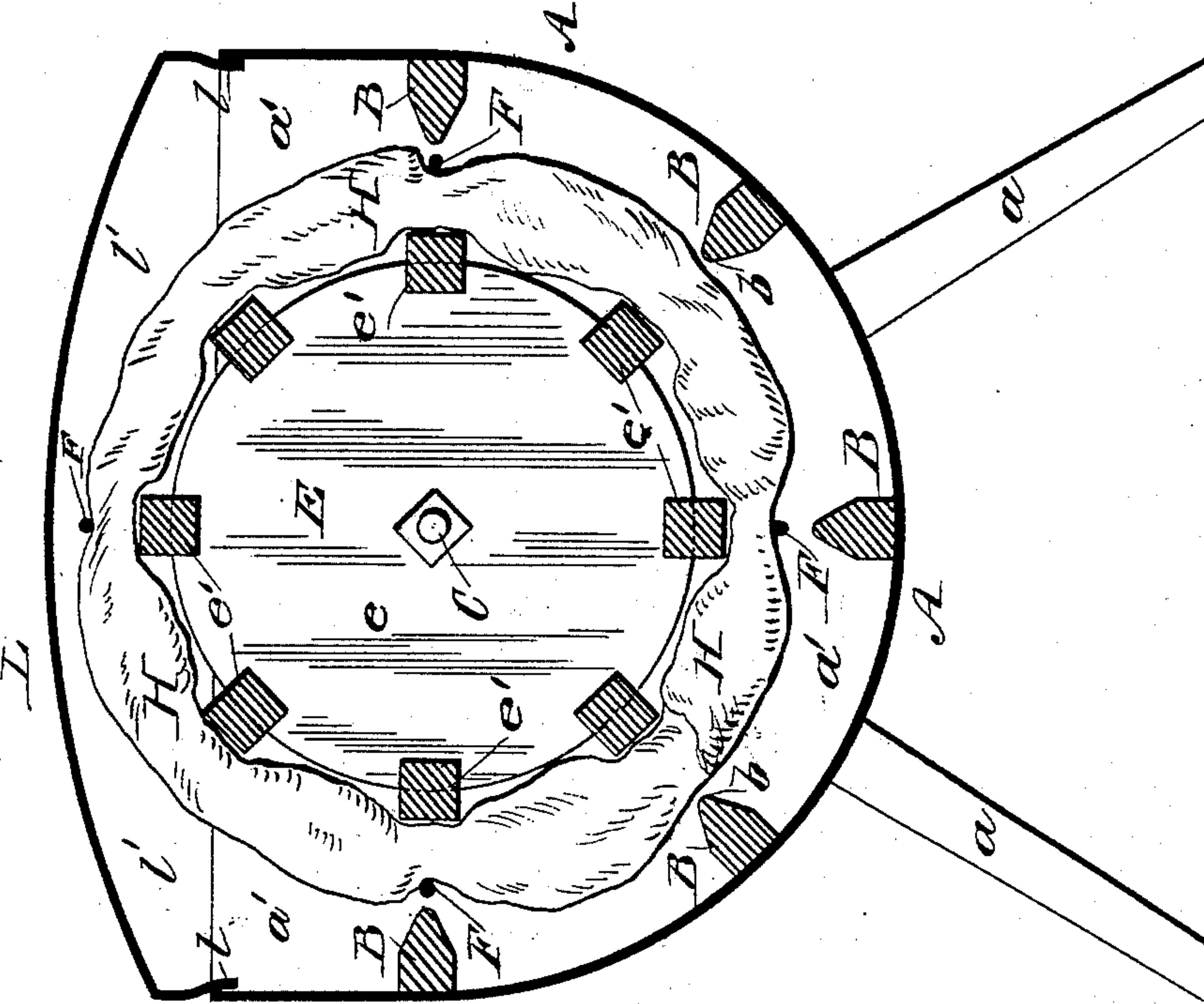
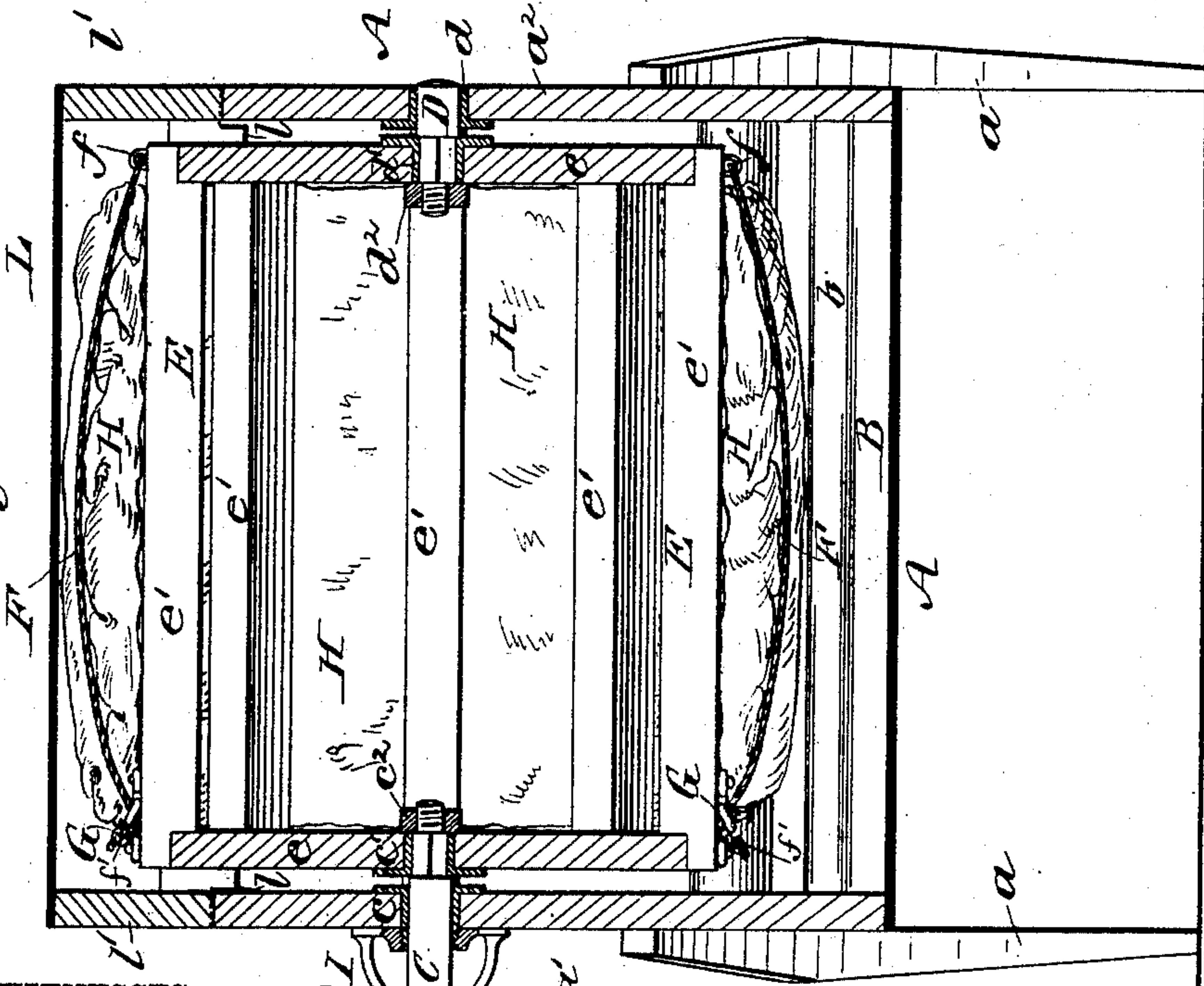


Fig. 1.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

JOHN BARTLEY RICHARDSON, OF PLEASANT PLAINS, ILLINOIS.

## WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 328,255, dated October 13, 1885.

Application filed December 8, 1884. Serial No. 149,780. (Model.)

*To all whom it may concern:*

Be it known that I, JOHN BARTLEY RICHARDSON, of Pleasant Plains, in the county of Sangamon and State of Illinois, have invented  
5 a new and Improved Washing-Machine, of which the following is a full, clear, and exact description.

The object of my invention is to improve the construction of clothes-washing machines,  
10 so as to provide a simple, inexpensive, easily-worked machine which will cleanse the clothes quickly without injuring them.

The invention consists in a washing-machine constructed with a tub having interior projecting ribs and a cover and a clothes-wheel  
15 journaled in the tub and made of end plates or supports carrying peripheral bars or slats provided on their outer faces with cords for holding the clothes to the wheel.

20 The invention consists, also, in particular constructions and combinations of parts of the machine, all as hereinafter fully described and claimed.

Reference is to be had to the accompanying  
25 drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a longitudinal sectional elevation of my improved washing-machine. Fig. 2 is  
30 a cross-sectional elevation of the same; and Fig. 3 is a plan view of one of the bars of the clothes-wheel and its clothes-holding cord.

The letter A indicates the tub or vessel in which the clothes are washed, and which I  
35 make in semi-cylindrical form transversely and support on suitable legs, *a*, at a convenient height.

At intervals around the inner curved side and bottom walls of the tub A, I fix a series  
40 of inwardly-projecting ribs, B, which are tapered almost to a point at their outer edges, as at *b*.

In the end walls, *a' a'*, of the tub A, I journal the short shafts or gudgeons C D, respectively, of the clothes-wheel E, which consist of opposite end plates, *e e*, connected by  
45 bars or slats *e'*, secured to the end plates in any suitable manner, and a number of said bars—say, four or six—having cords F secured to their  
50 outer faces by attaching one end of each cord

to an eye or staple, *f*, secured near one end of the bar, and passing the other end of the cord, which may have one or more knots, as at *f'*, into the space *g* between the loops *g' g'* of a  
sinuously-bent wire spring, G, which is secured at both ends to the face of the bar *e'*,  
55 and so that the knot *f'* will catch behind the spring-wire and hold the clothes to the bar. The springs, owing to their shape, will yield somewhat to prevent tearing-strains on the  
60 clothes by the tie-cords.

I make the wheel E so that the bars *e'* project beyond the peripheries of the end plates, *e e*, and make the bars *e'* with flat outer faces and comparatively sharp upper corners, to  
65 give a firm support to the clothes and prevent the clothes from slipping easily from beneath the cords F.

I prefer to journal the shafts C D of the clothes-wheel in metal bushings *c d*, fixed to  
70 the end walls, *a' a'*, of the tub A, and to fit the squared inner end portions of the shafts into correspondingly-shaped openings of bushing-plates *c' d'*, fixed to the plates *e e* of the clothes-wheel, and I screw nuts *c<sup>2</sup> d<sup>2</sup>* on the reduced  
75 ends of the shafts inside of the plates *e e*, as shown in Fig. 1.

The shaft C is made longer, so it may have support in a bearing, *i*, of a bridge-piece or bracket, I, held to the end wall, *a'*, of the tub,  
80 and on a squared part of the shaft C is fitted a crank, J, held to place by a nut, K, screwed on the reduced outer end of the shaft.

I provide a cover, L, fitting over the top of the tub A, and having its end parts bent inward, as at *l*, so as to hang within the sides of  
85 the tub, while the end walls or plates, *l'*, of the cover rest upon the ends *a' a'* of the tub.

The bent lips *l* prevent the water which may be thrown up by the clothes-wheel onto the  
90 inside of the cover from dripping onto the floor by conducting it back into the tub. The cover may be hinged to the tub, if desired.

The operation is as follows: The clothes H to be washed are placed beneath the cords F,  
95 which hold them to the wheel E, and a suitable quantity of water having been placed into the tub with soap or other preferred detergent, the cover L is put on and the wheel E is turned by the crank J, either or both ways, to  
10

carry the clothes through the water and against the ribs B on the inside of the tub, with the effect of very quickly removing the dirt from the clothes, which may easily be removed from the wheel by slipping the knotted ends of the cords F out of the springs G, and a new batch of clothes may be put on the wheel and the operation repeated until the work is finished.

I show the clothes-wheel made entirely of wood, except the tie-cords and the tub A, and its cover L made with wooden end walls and sheet-metal sides, bottom, and top, and with wooden ribs B; but the tub and wheel may be made wholly of either wood or metal, or any combination of these materials, and in any preferred size, as will readily be understood.

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

1. A washing-machine constructed with a tub having interior projecting ribs and a cover, and a clothes-wheel journaled in the tub, and made of end plates or supports carrying peripheral bars or slats provided with cords upon their outer faces, substantially as herein set forth. 25

2. In a washing-machine, the clothes-wheel E, journaled in the tub A, and consisting of end plates *e e*, connected by bars *e'*, which project beyond the peripheries of the end plates, and said bars *e'* having cords F held to them by staples *f* at one end, and elastic connections, as G, at the other end, substantially as herein set forth. 30

JOHN BARTLEY RICHARDSON.

Witnesses:

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