

J. A. BRANDON.

Improvement in Washing-Machines.

No. 130,105.

Patented Aug. 6, 1872.

Fig. 1.

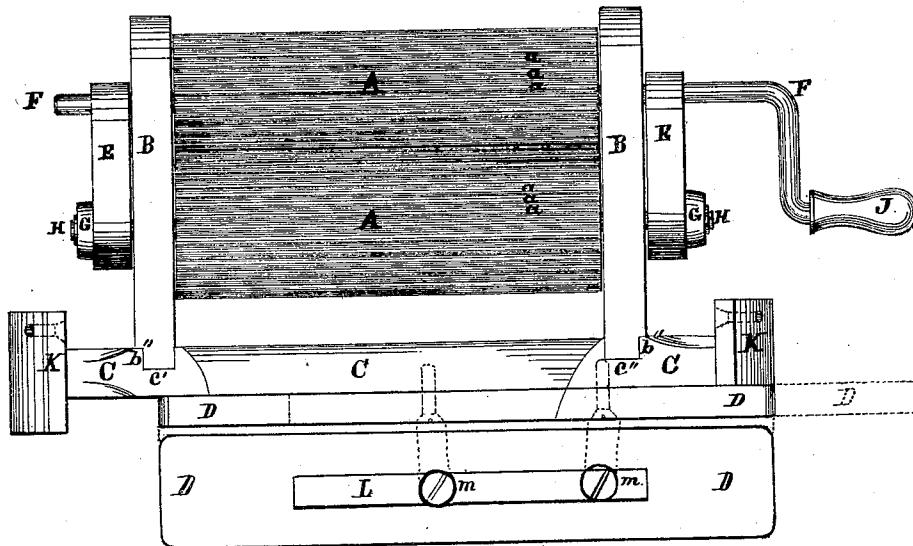
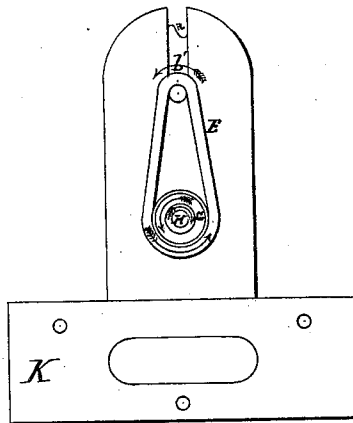


Fig. 2.



Witnesses.  
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# UNITED STATES PATENT OFFICE.

JAMES A. BRANDON, OF AKRON, OHIO, ASSIGNOR OF ONE-HALF OF HIS  
RIGHT TO TOWNSEND C. BUDD, OF SAME PLACE.

## IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. 130,105, dated August 6, 1872.

### SPECIFICATION.

Be it known that I, JAMES A. BRANDON, of Akron, county of Summit, State of Ohio, have invented a new and Improved Washing-Machine; and I declare the following to be a full, clear, and exact description of the same, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawing which forms a part of this specification.

My invention relates to the general construction of the machine, by which the parts are made to operate in conjunction, yielding just sufficient friction between the rollers to thoroughly rub and scour the clothes without destroying the texture of the fabric.

In the drawing, Figure 1 is a view of the washer, in which A A are the friction ribbed rollers, provided with ribs *a a*. B B are standards, slotted at *b' b'*, provided with shoulders *b'' b''*, and set into sill C at *c' c'*. D is another sliding or adjusting sill. E is a rubber band, passing around the axle F of upper roller and ring-band G of lower roller. H is the axle of lower roller. J is a crank. K K are blocks, which fasten to the inside of the tub. Also a plan or bottom view of the bottom sill, with slot L and screws or buttons *m m*. Fig. 2 is an end view of the machine.

My invention consists as follows: I form the two rollers, as shown in the drawing, with abrupt ribs with axles passing longitudinally through their axes. The lower axle H is retained and suspended at each end by passing through holes in the standards B B. The axle of the upper roller rests in the slots *b' b'*, where it is allowed sufficient vertical motion to make the distance between the rollers conform to the thickness of the fabric washed. The ends of the lower roller are encircled by band-rings, in which the roller can turn, and around which the band E, of India rubber, passes, and thence over the end of the top roller axle. The crank J, situated at the extremity of the upper axle, is used to operate the machine. When this is turned the fabric will be carried through between the rollers, and will force the lower roller around with it; but the band E gives to the ring-band G a motion opposite to that of the inclosed axle H,

offering a steady but yielding backward strain upon the lower roller, giving an effectual rubbing or scouring to the interposed fabric. When the rubber band is slack or the rollers close together, as when washing handkerchiefs, collars, &c., this rubbing friction between the rollers is very slight and properly adapted to the material washed. As the rollers are pressed apart the strain of the band E is proportionally greater, and the friction between the rollers is again suited to the material washed. Pieces or blocks K K are provided to attach by screws to the inside of a tub; and the sills D C slide upon each other, through the medium of the slot L and buttons *m m*, and can therefore be adjusted to any sized tub, and be readily removed.

It will thus be seen I have dispensed entirely with metal wearing upon metal, and therefore with rust and iron-filings, which often injure the clothes.

With thin fabrics there is produced a direct rubbing friction between the ribs of the rollers, which is increased, in some degree, by the contrary motion of the band-ring G upon the axle of the lower roller.

The rollers A A are made of hard maple wood or other suitable material; and at the bottoms of the standards, on the outside, a shoulder is formed, which impinges against the sill C and prevents the machine from spreading. The standards are set into the sill C at their lower ends, and screws are used throughout the whole machine for fastening the parts together.

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

The washing-machine herein described, provided with ribbed rollers A A, slotted standards B B, sills C D, rubber band E, axle H and ring-band G, slot L and buttons *m m*, shoulders *b'' b''*, when the same are constructed and arranged as and for the purposes set forth and shown.

JAMES A. BRANDON.

Witnesses:

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