

(No Model.)

J. L. LE BEAU.
WASHING MACHINE.

No. 450,464.

Patented Apr. 14, 1891.

Fig. 2.

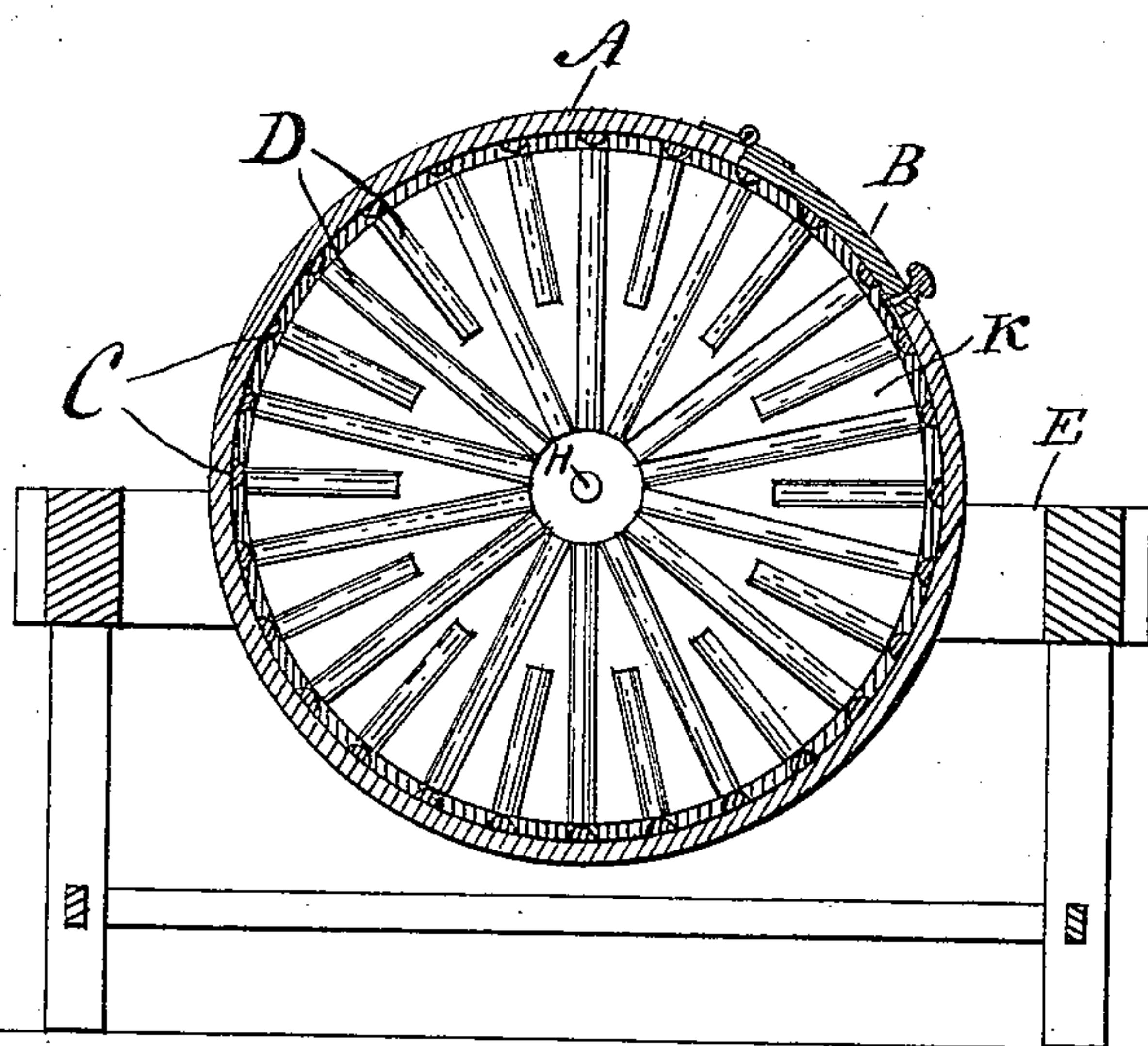
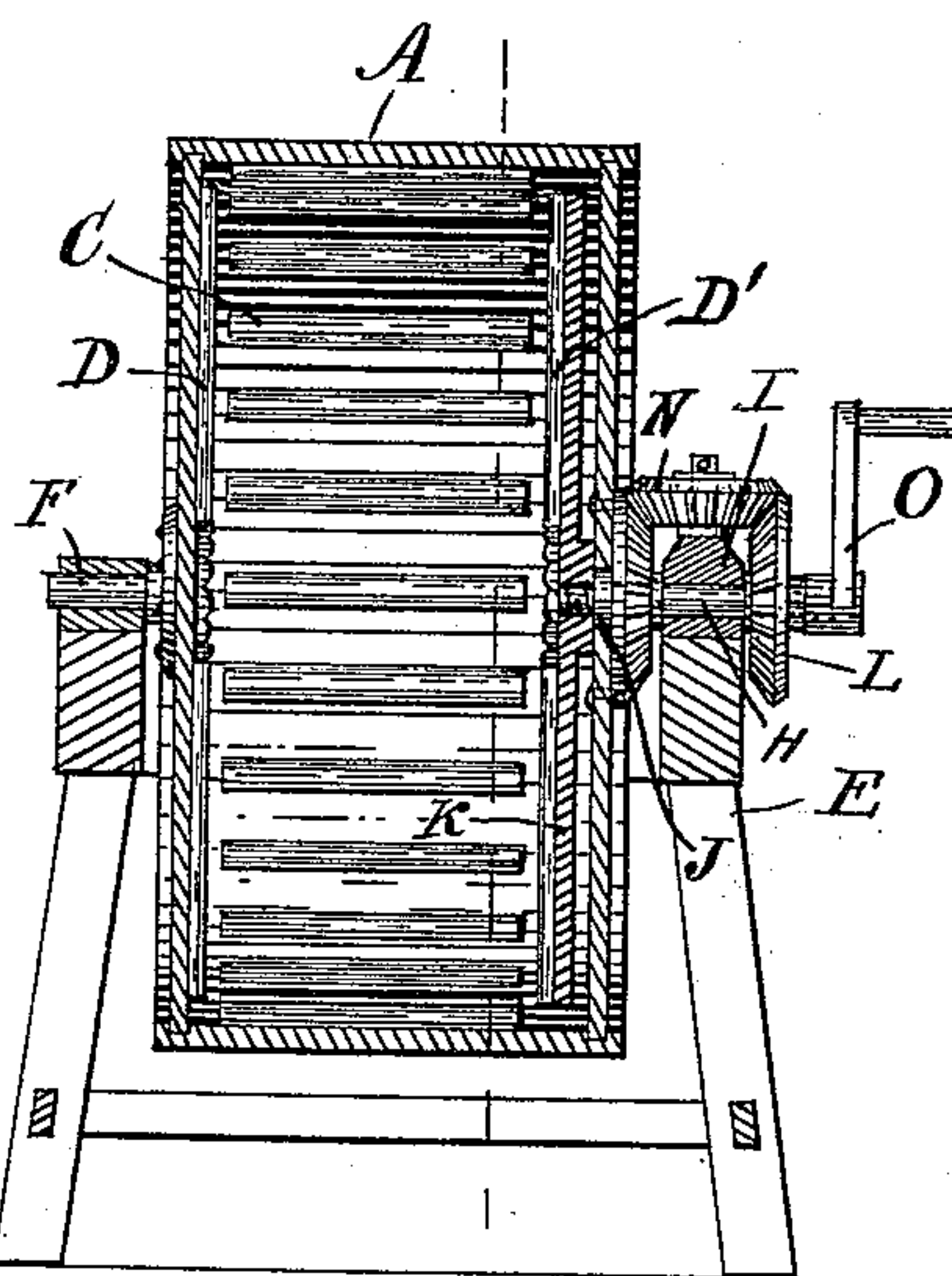


Fig. 1.



Witnesses
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UNITED STATES PATENT OFFICE.

JOSEPH L. LE BEAU, OF TIPTON, INDIANA.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 450,464, dated April 14, 1891.

Application filed August 9, 1890. Serial No. 361,539. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH L. LE BEAU, a citizen of the United States, residing at Tipton, in the county of Tipton and State of Indiana, have invented a new and useful Washing-Machine, of which the following is a specification.

My invention relates to an improvement in that class of washing-machines which consist of a barrel or hollow cylinder mounted in bearings on a suitable base-frame, so as to revolve in a vertical plane.

The object of my improvement is to counteract the tendency of the material washed to cling to the inner periphery of the cylinder, and to thereby produce an effective rubbing action on said material without undue wear thereof.

The accompanying drawings illustrate my invention.

Figure 1 represents a longitudinal section. Fig. 2 represents a transverse section.

A is a wooden cylinder having in its periphery a door B, and having on its interior periphery longitudinal ribs or rubbing-strips C, and on one interior end a series of radial rubbing-strips D. Cylinder A is mounted so as to revolve in a vertical plane on a supporting-frame E by means of a short shaft F, rigidly secured centrally to the exterior of that end of the cylinder having the rubbing-strips D and resting in a suitable bearing on the frame, and a shaft H, which rests in a bearing I on the frame and projects into the other end of the cylinder through a bearing J, which also forms a bevel gear-wheel and is secured to the cylinder, the arrangement being such that shaft F turns with the cylinder, while the cylinder turns upon shaft H.

It is well known that in this class of washing-machines there is a tendency, increasing with the increased speed of the revolving cylinder, for the clothing to cling to the inner periphery of the cylinder and to rotate there-

with. For the purpose of avoiding this difficulty, and thereby insuring a gentle rubbing action on the clothing or other material to be washed, I secure rigidly to the inner end of shaft H, so as to turn therewith just within the head of the cylinder, a disk K of nearly the same diameter as the interior of the cylinder, and provided on its inner face with radial rubbing strips or ribs D', like those on the opposite end of the cylinder. A bevel gear-wheel L is also secured to the shaft H, so as to turn therewith, and gear-wheels L and J are connected by an intermediate bevel gear-wheel N, the arrangement being such that by the turning of shaft H the cylinder A and disk K are rotated in opposite directions. Shaft H is turned by means of a crank O, secured thereto.

In operation cylinder A is about half filled with suds and clothing, and shaft H having been put in motion the clothing is drawn forward and upward by its adherence to the cylinder and backward and downward by the oppositely-moving disk K, thus giving it a rubbing movement over the strips or ribs C and D.

I claim as my invention—

In a washing-machine, the combination of the base-frame, the cylinder A, having the series of interior longitudinal ribs C and radial ribs D, the fixed shaft F, and loose shaft H, arranged to support the cylinder on the base-frame, the disk secured to shaft H within the cylinder and having on its inner face a series of radial ribs, bevel gear-wheel J, secured to the cylinder, bevel gear-wheel L, secured to shaft H, and the intermediate bevel gear-wheel N, all arranged to co-operate substantially as and for the purpose set forth.

JOSEPH L. LE BEAU.

Witnesses:

GEO. LE BEAU,
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