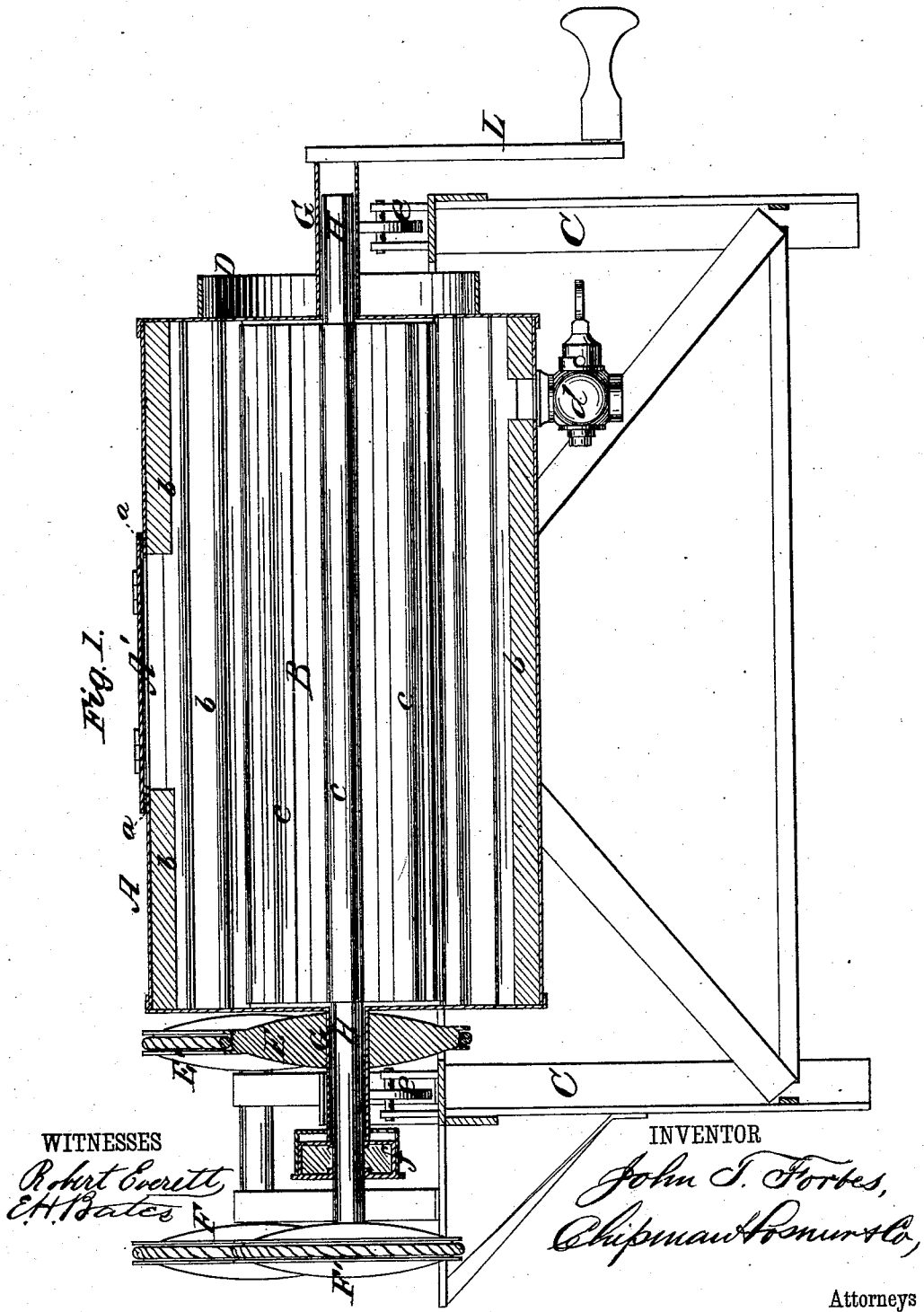


J. T. FORBES.
Washing-Machine.

No. 160,413.

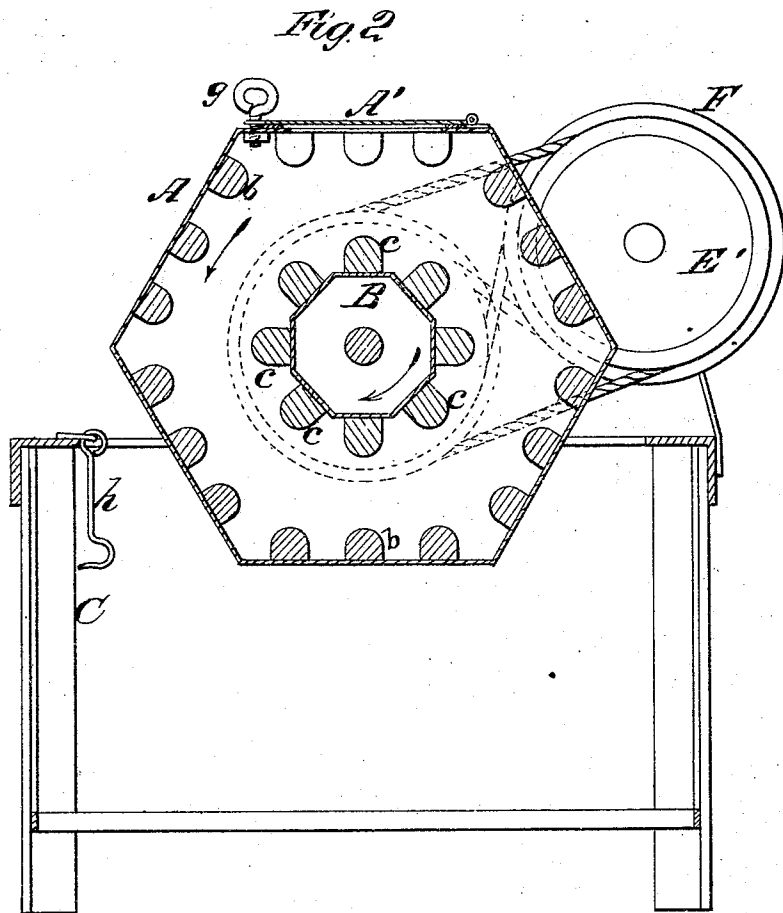
Patented March 2, 1875.



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WITNESSES

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UNITED STATES PATENT OFFICE.

JOHN THOMAS FORBES, OF CHARLESTON, SOUTH CAROLINA.

IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. **160,413**, dated March 2, 1875; application filed August 31, 1874.

To all whom it may concern:

Be it known that I, JOHN THOMAS FORBES, of Charleston, in the county of Charleston and State of South Carolina, 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 drawing is a representation of a longitudinal sectional view of my washing-machine. Fig. 2 is a vertical sectional view of the same.

This invention has relation to washing-machines of the rotary kind; and it consists in two prismatic drums, suitably ribbed, and arranged one within the other, in combination with certain devices, hereinafter explained, for rotating the drums in opposite directions.

The following is a description of my invention.

In the annexed drawings, A designates a hexagonal drum, having ribs *b* on its inner sides, and provided with a door, A'. The door A' will be made water-tight when shut, and fastened by screws *g*, by means of a suitable packing, *a*, recessed into the outer surface of one of the six sides. The ends of this drum have centrally secured to them tubular shafts G G, which are supported, by anti-friction rollers *ee*, upon a frame, C, and which receive in them the ends of a shaft, H, on which is applied an octagonal drum, B, having ribs *c* on its eight sides. This drum B is considerably smaller than the drum A, in which it is applied, and on one end of its shaft a pulley, F', is keyed, which receives rotation from a pulley, E, on one end of the tubular shaft G, through the medium of belts and pulleys F E'. The drum B thus receives rotation in an opposite direction to the rotation given to drum A by means of a crank, L.

Water is prevented from escaping from that end of the shaft G nearest the pulley F' by means of a stuffing-box, *f*. At the opposite end of the drum A shaft G is closed by the end of the crank L, which is secured to its end.

If it is desired to operate the machine by water-power, or by means of a steam-engine, wheels E, E', and F are omitted, and the belt-wheels D and F' are used for rotating the drums in opposite directions.

When fabrics are put into the drum A, and rotation is given to this drum and the interior drum, the fabrics will be subjected to the rubbing and beating action of the ribs of both drums, which beating action is due to the prismatic shape of the drums.

I am aware that an open prismatic drum or reel is not new *per se*, and I am also aware that a hollow cylinder provided with ribs has heretofore been employed for washing purposes, in combination with an interior ribbed cylinder of less diameter, and rotating therein in a direction opposite to that of the outer cylinder, and I therefore make no claim to such invention, in which a rubbing motion only of the clothes is attained, whereas by my construction both a rubbing and beating action is attained.

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

The two prismatic ribbed drums A B, arranged one within the other, in combination with shafts G H and pulleys E E' F F', for giving opposite motions to said drums, whereby a beating and rubbing action on the clothes is produced, substantially as described.

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

JOHN THOMAS FORBES.

Witnesses:

C. E. SURANY,
P. FLYNN.